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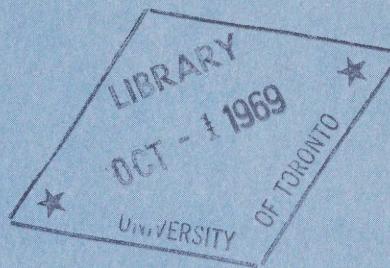


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DEPARTMENT OF ENERGY, MINES AND RESOURCES  
Ottawa



# EAST GREENLAND, DENMARK STRAIT and IRMINGER SEA

January 16 to April 5, 1967

No. 4  
1969 Data Record Series

Canadian Oceanographic Data Centre

Programmed by the  
Canadian Committee on Oceanography

1969

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**EAST GREENLAND, DENMARK STRAIT  
and IRMINGER SEA**

**January 16 to April 5, 1967**

**CODC Reference: 10-67-001**

**No. 4**

**1969 Data Record Series**

**DEPARTMENT OF ENERGY, MINES AND RESOURCES  
Canadian Oceanographic Data Centre  
615 Booth St., Ottawa, Canada**

**Programmed by the Canadian Committee on Oceanography**



DEPARTMENT OF ENERGY, MINES AND RESOURCES

MARINE SCIENCES BRANCH

EAST GREENLAND, DENMARK STRAIT and IRMINGER SEA

Ship:	CSS "Hudson"
Local cruise designation:	BIO 0267
CODC cruise reference no:	10-67-001
Cruise period:	January 16 - April 5, 1967
Scientist-in-Charge:	C.R. Mann
Observers:	J.R.N. Lazier C.K. Ross A.B. Grant B.D. Carson

ATLANTIC OCEANOGRAPHIC LABORATORY

BEDFORD INSTITUTE, Dartmouth, N.S.



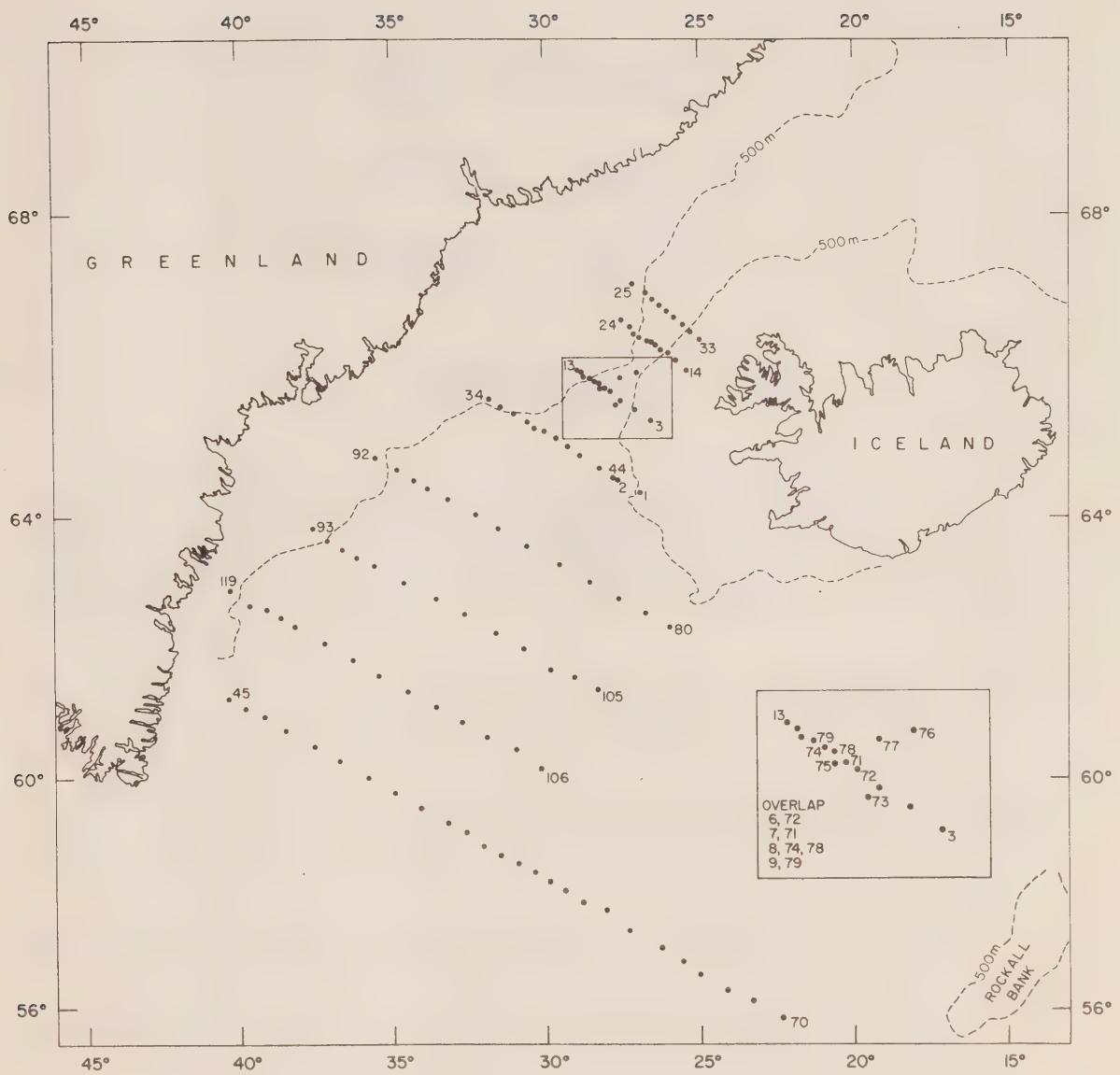
## SECTION I

Description of data collection procedures











INTRODUCTION

The object of this cruise was to collect oceanographic data for the further studies of ocean circulation in the areas of East Greenland, Denmark Strait, and Irminger Sea.

EXTRACT OF CRUISE LOG

Depart Halifax - 16 January 1967

Return Halifax - 5 April 1967

OBSERVATIONS TAKEN

1. 119 oceanographic stations at which temperature, salinity, dissolved oxygen, and silicate content were measured. Sea water samples were taken for phosphate analysis at stations along three lines. One across the northern part of Denmark Strait, one across the southern part, and one running from the east coast of Greenland across deep water to the Reykjanes Ridge.
2. 40 vertical profiles of temperature made with a bathysonde at selected stations throughout the cruise. The bathysonde was positioned close to the bottom using a pinger suspended below it.
3. 27 sets of Bergen-type current meter observations at selected stations in the overflow. The current meter was lowered on the oceanographic cast or below the bathysonde.
4. 15 vertical profiles of temperature with expendable B.T.'s. Mainly across the shallowest part of the Denmark Strait.
5. 10 observations of deep currents east and west of the southern part of the Reykjanes Ridge using neutrally buoyant floats.
6. 34 days of continuous recordings of current velocity and direction and temperature from meters moored with buoys at two locations in the southern part of the Denmark Strait.
7. 4,822 miles of echo soundings using an Alpine recorder with an EDO transmitter/receiver and transducer.

The above observations were made as a collaborative venture by scientists from the Bedford Institute, the Woods Hole Oceanographic Institution, and the National Institute of Oceanography (UK). The station and bathysonde observations were undertaken by BI, the moored current meter observations and salinity determinations by WHOI and the Bergen current meter observations by NIO.

#### OBSERVATIONAL PROCEDURES

Eight lines of stations were run across the Denmark Strait. One south and two north of the sill. A line of expendable bathythermographs was run across the Strait at the nominal position of the sill. Current meters and temperature recorders were employed along a single line across the Strait to the south of the sill and three lines were worked running from the east Greenland coast to the Reykjanes Ridge.

Salinities were measured on a Sleicher and Bradshaw salinometer. Duplicate samples were run for some stations on an Auto-Lab machine which consistently gave salinities 0.008 higher.

Sub-surface temperatures were measured with Richter and Wiese or Yoshino reversing thermometers. Bathysonde lowerings showed considerable structure in the overflow as it passed through the Denmark Strait and that the structure could change considerably within a period of a day.

Dissolved oxygen concentrations were determined by the modified Winkler Method (Strickland, et al., 1960).

Salinities were determined on board by scientists from Woods Hole Oceanographic Institution, using a Sleicher and Bradshaw salinometer. They are considered accurate to  $\pm 0.003\%$ .

PERSONNELAt sea:

C.R. Mann, Senior Scientist	
J.R.N. Lazier	
C.K. Ross	
A.B. Grant	
B.D. Carson	
L.V. Worthington, WHOI	
G. Metcalf, WHOI	
J.C. Swallow, NIO	
Wm. L. Ford, Director, AOL	Jan. 16 - Feb. 7
R. Heinmiller, WHOI	Jan. 16 - Jan. 27; Mar. 1 - Mar. 15
G.G. Day, WHOI	Jan. 16 - Jan. 27
T.R. Foote	Jan. 16 - Mar. 1
E.A. Lewis	" "
R.F. Reiniger	" "
J.P. Budlong	" "
W. Young	" "
S.S. Dunbrack	" "
S.J.N. Winter	" "
D.J. Beazley	Jan. 16 - Mar. 15
R. Wright, WHOI	" "
G.H. Volkmann, WHOI	Feb. 7 - Mar. 1
R.S. Hiltz	Mar. 1 - Apr. 5
F.K. Keyte	" "
R.C. Amero	" "
G.T. Needler	" "
G.F. Connolly	" "
A.R. Parsons	" "
S.F.W. Spencer	Mar. 15 - Apr. 5
J.R. Barrett, WHOI	" "

Data Analyses

## Compilation of data:

R.F. Reiniger  
 C.K. Ross  
 A.B. Grant

## Chemical determinations

W. Young  
 F.K. Keyte  
 R.S. Hiltz



## SECTION II

Description of the machine-generated data record



## INTRODUCTION

This section applies to the machine processing phase of the data reduction and computation.

The oceanographic data previously recorded on CODC data summary forms, a sample of which is shown on the next page, are transferred to punch-cards for subsequent electronic data processing on an IBM 1620 computer, using CODC's OCEANS II program. In addition to computing routine derived quantities, the program carries out unit and format conversions, range checks, plausibility tests, internal editing, and if required, interpolation at standard oceanographic depths. When interpolations are carried out, additional derived values are computed.

After the data have been processed, the data record is prepared using an IBM 1401 computer configuration with the OCEAN REPORT III program, which provides for pre-edited high speed print-out on continuous direct-image masters. These masters subsequently yield the required volume of copies for distribution.

Provision has been made to enter an "estimate of precision" for each observed variable selected for interpolation at standard oceanographic depths. The precision depends on the instrument and/or technique used to determine the variable. A standard precision stated as a **standard deviation** ( $\sigma$ ) can be determined for each instrument or technique under routine field conditions by making duplicate determinations of the variables for a homogeneous sample of sea water. These standard deviations are given for each cruise under "GENERAL INFORMATION" in section III of the data record.

The **measurement error estimate** of a specific observation in this data record, is stated as a multiple of the standard deviation derived as above, and entered in a column immediately to the right of the reported variable. In order to distinguish it from an additional decimal digit, the measurement error estimate is recorded alphabetically, (i.e.,  $1\sigma = A$ ,  $2\sigma = B$ , etc.; in this data record "A" is suppressed).

An option is provided with respect to the measurement of the salinity variable. If observed to three decimal digits, the last digit takes the place of the measurement error estimate.

In the past, a number of methods for both manual and machine interpolation have been developed. Studies and comparisons of the several methods have shown that no single method is universally acceptable. The manual methods are the most elaborate and flexible, but often require subjective decisions. In machine interpolation, all the present methods fail to yield acceptable results under some circumstances. Hence, it is considered necessary to qualify interpolated values by stating an "interpolation error estimate" derived from the particular interpolation formula used. There are two purposes in stating the error estimates; first, to give an indication of the quality of the interpolated data; second, to allow the oceanographer to redesign his observational procedures in order to reduce interpolation errors in future observations.

The interpolation scheme chosen for the OCEANS II program consists of a combination of two 3-point interpolations using the Lagrangian interpolation polynomial, as recommended by Rattray (1962). A parabola is fitted through three values of a given variable (T, S, O<sub>2</sub>) considered as a function of depth. The two interpolation parabolas require a total of four points (observed depths). The middle points are common to both parabolas. The average of the two values obtained from the parabolas at standard depth is taken as the interpolated value, and a function of their difference as an estimate of the interpolation error.

This function combined with the "measurement error estimate" comprises the "combined measurement and interpolation error estimate". It is expressed as a multiple of the standard deviation of measurement ( $\sigma$ ) under normal routine field conditions by:

**CANADIAN OCEANOGRAPHIC DATA CENTRE**

O B S E R V . E D C A R D												
1 COUNTRY INST.	2 LATITUDE (N = +) DEG. <sup>o</sup> MIN. <sup>10</sup>		3 LONGITUDE (W = +) DEG. <sup>o</sup> MIN. <sup>10</sup>		5 DATE YEAR MONTH DAY		6 TIME HOURS 1/10 G.M.T.		7 DEPTH 1 TO BOTTOM		9 NO. DEPTHS OBS'D.	
	1 8	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	10	11 12 13 14 15	19 20 21 22 23 24 25 26 27 28 29 30 31	34 35	ENTERED BY	CHECKED BY				
S WATER	11 WAVES I		12 WAVES II		13 WIND		14 BAROMETER		15 AIR TEMP.		16 WET BULB	
	Dw	Dw	Pw	Hw	Dw	Dw	Pw	Hw	Dw	Pw	Hw	CODE 1/10 (SEPT. 62)
Z COLOUR TRANS.	UNASSIGNED											
	36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80											
S TEMPERATURE	7 DEPTH OF SAMPLE		8		9 SALINITY		10 OXYGEN		11 PO <sub>4</sub> - P		12 TOTAL - P	
	1/10	G.M.T.	e	↓	e	↓	e	↓	e	↓	e	↓
S CARBON DIOXIDE	UNASSIGNED											
	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20											
25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80												
TYPE CLOUD COND. CLOUD NUMBER CONSEC. NUMBER CRUISE REFERENCE NUMBER VESSEL												

$$\frac{\sigma_i}{\sigma} = \left\{ \frac{(\Delta V_i)^2}{\sigma^2} + \sum_{n=j-2}^{j+1} (\gamma_n)^2 \left( \frac{\sigma_n}{\sigma} \right)^2 \right\}^{1/2}, \text{ where}$$

$\sigma$  = Standard deviation of the combined error estimates at standard oceanographic depth,  
 $\Delta V_i$  = the interpolation error estimate of variable "V" at standard oceanographic depth =  $^{1/3} (V_{i_1} - V_{i_2})$   
 $\gamma$  = Interpolation polynomial coefficient.

$Z_j$  = Observed depth.

$Z_i$  = Standard oceanographic depth, such that:  $Z_{j-2} < Z_{j-1} < Z_i < Z_j < Z_{j+1}$

The integral part of the fraction  $\frac{\sigma_i}{\sigma}$ , if  $\geq 2$ , is reported in this Data Record following the interpolated variable. It represents the combined measurement and interpolation error estimate. In order to distinguish it from an additional decimal digit, it is recorded alphabetically (e.g.: 2 as "B", 3 as "C", etc.).

With respect to the interpolated value of the salinity variable if reported to three decimal digits, the interpolation error estimate is given only when  $\frac{\sigma_i}{\sigma} \geq 2$  (the salinity is then recorded to two decimal places). If less than 2, the mean obtained from the two interpolation parabolas is reported to three decimal places.

## EXPLANATION OF DATA RECORD HEADINGS

## MASTER HEADINGS

(1) C-REF-NO	(6) YR	(11) DEPTH	(16) WAVES 1	(21) AIR T	(26) VIS
(2) CONS. NO	(7) MONTH	(12) MXSAMPD	(17) WAVES 2	(22) WET B	(27) STN
(3) LAT	(8) DAY	(13) NO. DPTH	(18) WND-DIR	(23) WW-CODE	
(4) LON	(9) HR	(14) W-COLOR	(19) WND-FCE	(24) CLD-TPE	
(5) MARSD SQ	(10) C/I	(15) W-TRNSP	(20) BARO	(25) CLD-AMT	(28) HW

(1) CRUISE REFERENCE NUMBER: Assigned by the Institute. Commences with 001 at the beginning of each year (effective Jan. 1, 1963). Prior to that date the CRN was a number designated by CODC.

(2) CONSECUTIVE NUMBER: Indicates the chronological order in which the stations were occupied.

(3) LATITUDE: Indicate the position of the platform at the time of observation.

(4) LONGITUDE:

(5) MARSDEN SQUARE: Designates the geographic area code of the observation (see Marsden square chart).

(6) YEAR:

(7) MONTH:

(8) DAY:

(9) HOUR: The time (Greenwich Mean Time) at which the surface environmental data were recorded. It is reported to tenths of hours (Table 1). If an "X" precedes the value for HOUR, (prior to Jan. 1, 1963) it indicates that the reported time is doubtful.

(10) COUNTRY/INSTITUTE: The International Geophysical Year (IGY) Country Code/Institute Code - see Table 11.

(11) DEPTH: The sounding reported in metres. If corrected, this is stated in the "GENERAL INFORMATION" chapter of section III. Charted depths are preceded by the letter "C".

(12) MAXIMUM SAMPLING DEPTH: A code to indicate the deepest sampling depth (used for high speed sorting).  
 00 m - 50 m = 00  
 51 m - 150 m = 01  
 151 m - 250 m = 02  
 etc.

(13) NUMBER OF DEPTHS: The number of levels observed (this is entered to initiate a computer safety check, guarding against the loss of punch-cards).

(14) WATER COLOUR: A code based on the percentage of yellow (see table 2 and Note under FIELD "15" below).

(15) WATER TRANSPARENCY: The depth in metres at which a Secchi disc (white disc, 30 cm. in diameter) just disappears from view, or the optical density expressed in percentage;

NOTE: The "GENERAL INFORMATION" chapter in section III of the data record will state which method was used.

(16) WAVES 1  
 $(d_w d_w P_w H_w$ -code): The direction, period and height of the wind-propagated wave system. (See Tables 3, 4 and 5). Ref: World Meteorological Organization Codes 0885, 3155, 1555.

(17) WAVES 2  
 $(d_w d_w P_w H_w$ -code): The direction, period and height of the predominant non-wind-propagated wave system. (See Tables 3, 4 and 5). Ref: World Meteorological Organization Codes 0885, 3155, 1555.

(18) WIND DIRECTION: The true direction to the nearest 10 degrees from which the wind is blowing (wind direction 990 means:—wind variable or direction unknown).

(19) WIND FORCE (WND-FCE): Beaufort notation (See Table 6).

WIND SPEED (WND-SPD): Anemometer reading reported in metres per second. Instrument height reported in "GENERAL INFORMATION" chapter of section III.

(20) BAROMETER: The barometric pressure reported in millibars: the "GENERAL INFORMATION" chapter in Section III of the data record will state the type of instrument used.

(21) AIR TEMPERATURE: In degrees Celsius.

(22) WET BULB: In degrees Celsius.

(23) ww CODE: Present Weather Code (See Table 7). Ref: WMO Code 4677

(24) CLOUD TYPE: The type of predominating clouds (See Table 8). Ref: WMO Code 0500.

(25) CLOUD AMOUNT: The sky coverage in eighths (See Table 9) Ref: WMO Code 2700

(26) VISIBILITY: Visibility at the surface (See Table 10). Ref: WMO Code 4300.

(27) STATION: A station reference number, assigned by the institute prior to, or during the survey.

(28) HOURS AFTER HIGH WATER: Indicates the state of the tide for nearshore observations.

## OBSERVED DATA HEADINGS

(1) <i>GMT</i>	(2) <i>DEPTH</i>	(3) <i>TEMP</i>	(4) <i>SAL</i>	(5) <i>OXYGEN</i>	(6) <i>SGMT</i>
(7) <i>SOUND</i>	(8) <i>PO<sub>4</sub></i>	(9) -P-	(10) <i>NO<sub>2</sub></i>	(11) <i>NO<sub>3</sub></i>	(12) <i>SiO<sub>3</sub></i>
					(13) <i>pH.</i>

**NOTE:** Headings (1) to (7) will always be present. Headings (8) to (13) appear only when one or more additional chemical entries were made.

## (1) G.M.T.:

The Greenwich Mean Time of (in-situ) thermometer inversion and sea water sample collection.

When a multiple cast was initiated prior to and continued after midnight, the times indicated are uninterrupted by the change of day and appear beyond 24.0 hours. This will be accompanied by a statement: "MULTIPLE CAST CONTINUED NEXT DAY", which is printed following the last level of observed values.

## (2) DEPTH:

The depth in metres at the reversal time of deepest cast.

## (3) TEMPERATURE:

Temperatures from deepsea reversing thermometers, read to 0.01° C. Surface temperature measurement procedures are described in the chapter "OBSERVATION PROCEDURES" of section I, and/or the "GENERAL INFORMATION" chapter of section III.  
An alphabetical character following the temperature value represents the measurement error estimate referred to in the INTRODUCTION to this section.

## (4) SALINITY:

Salinity as defined by:  $S = 0.03 + 1.805 C1\%$ , reported in:  
a. 1/100 parts per 1000, or  
b. 1/1000 parts per 1000.

In case a: an alphabetical character following the value is the measurement error estimate as referred to under (3).

In case b: no error estimate indication is provided for, but an additional decimal digit takes its place.

## (5) OXYGEN:

The concentration of dissolved oxygen expressed in millilitres per litre to 2 decimal places.

An alphabetical character following the value is the measurement error estimate as referred to under (3).

## (6) SIGMA-T:

The specific gravity anomaly as defined by:  $(\text{Specific gravity} - 1) \times 10^3$  (e.g.,  $\sigma_t$  reported as 2456, reads 24.56, and corresponds to a specific gravity of 1.02456).

## (7) SOUND:

The sound velocity is reported in m/sec. to 1 decimal place (e.g., 1437.9 m/sec.). The computation is carried out using Wilson's formula (1960), expressed in terms of temperature, salinity and total pressure.

(8) PO <sub>4</sub>	Phosphate-Phosphorus reported to hundredths of microgram-atoms per litre.
(9) -P-	Total Phosphorus reported to hundredths of microgram-atoms per litre.
(10) NO <sub>2</sub>	Nitrite-Nitrogen reported to hundredths of microgram-atoms per litre – No dissolved nitrogen included –
(11) NO <sub>3</sub>	Nitrate-Nitrogen reported to tenths of microgram-atoms per litre.
(12) SiO <sub>2</sub>	Silicate-Silicon reported in whole microgram-atoms per litre.
(13) pH	The pH value.

NOTE: "TRC" (trace) is reported when a chemical entry has a value less than the standard deviation of measurement for that particular variable.

#### INTERPOLATED DATA HEADINGS

(1) DEPTH	(2) TEMP	(3) SAL	(4) OXYGEN	(5) SGMT	(6) SOUND
(7) DELTA-D	(8) POT-EN	(9) SVA.			

(1) DEPTH: Standard Oceanographic Depth in whole metres, as well as additional depths: 125, 175, 225, 3500, 4500, 5500, 6500, 7500, 8500, 9500.

(2) TEMPERATURE: Interpolated value at standard depth, followed by the combined measurement and interpolation error estimate (see "INTRODUCTION" to section II of the data record).

(3) SALINITY:

- A. The reported salinity values are measured to three decimal places.
  - (i) the interpolation error estimate is less than twice the standard deviation of measurement
    - the interpolated value is reported to three decimal places (e.g., 30.139).
  - (ii) the interpolation error estimate is equal to or greater than twice the standard deviation of measurement.
    - the interpolated value is reported to two decimal places, and followed by the interpolation error estimate (e.g., 29.23 C).
- B. The reported salinity values are measured to two decimal places and followed by the measurement error estimate.
  - the interpolated value is reported to two decimal places, and followed by the combined measurement and interpolation error estimate (e.g., 30.59 B).

(4) OXYGEN: Interpolated value at standard depth, followed by the combined measurement and interpolation error estimate (see "Introduction" to section II of the data record).

(5) SIGMA-T: Computed from temperature and salinity values at standard oceanographic depth.

(6) SOUND VELOCITY: Computed from temperature, salinity and total pressure values at standard oceanographic depth, using Wilson's formula (1960).

(7) DELTA-D: The geo-potential anomaly as defined by:

$$\Delta D = \int_o^P \delta dp$$

$\Delta D$  is expressed in dynamic metres ( $10^5$  ergs/gram) and recorded to three decimal places (e.g., 2.345 dyn. metres).

(8) POTENTIAL ENERGY ANOMALY: The Potential energy anomaly  $\chi$  as defined by:

$$\chi = 1/g \int_o^P p \delta dp = \int_o^Z \rho p \delta dz$$

$\chi$  is expressed in units of  $10^8$  ergs/cm<sup>2</sup> and recorded to two decimal places (e.g., 116.44).

(9) SPECIFIC VOLUME ANOMALY: The specific volume anomaly as defined by:

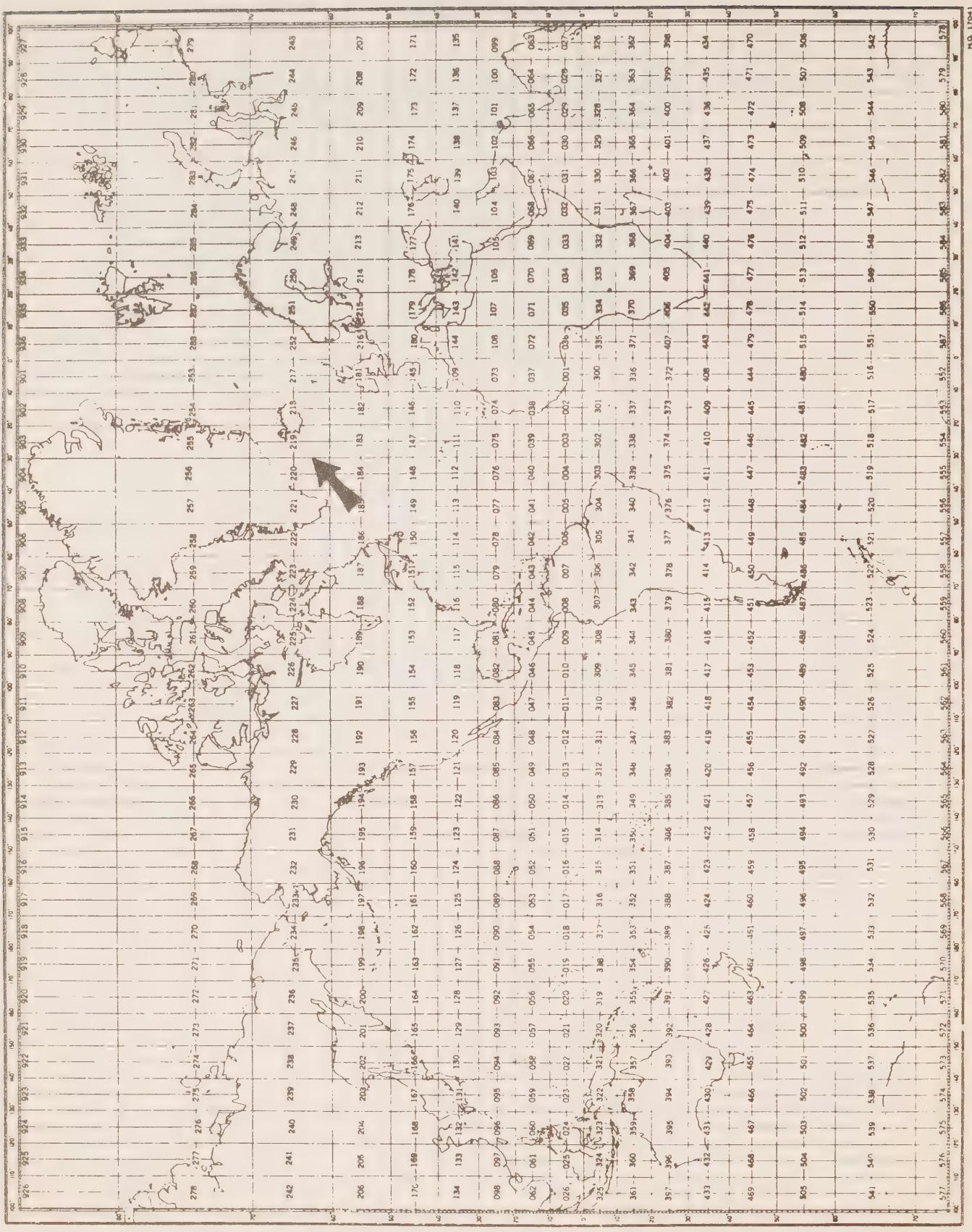
$$\delta = \alpha - \alpha_{35.0.P}$$

$\delta$  is expressed in ml/gr, and conventionally reported as  $10^5 \delta$ , to one decimal place (i.e.,  $\delta$  reported as 1234, reads 123.4, and corresponds to a specific volume anomaly of 0.001234 ml/gr.).

## SPECIAL CHARACTERS

‡ (Record mark): is used to indicate inconsistencies which are printed in an area below the "Observed Data". A corresponding record mark at the extreme left hand side indicates the level at which the inconsistency occurs

\* (Asterisk): this character may occur in the **interpolated** portion of the data record. It is printed at the extreme left hand side of the page, when three or more standard depth levels fall within any one **observed depth interval**. The **third**, and all consequent levels are preceded by the asterisk to indicate that more than **two** machine interpolations were carried out, utilizing the same set of interpolation parabolas. The asterisk will also appear when the last standard depth is an extrapolation and there are at least two interpolations between the last two observed depths.



## MARSDEN SQUARE CHART

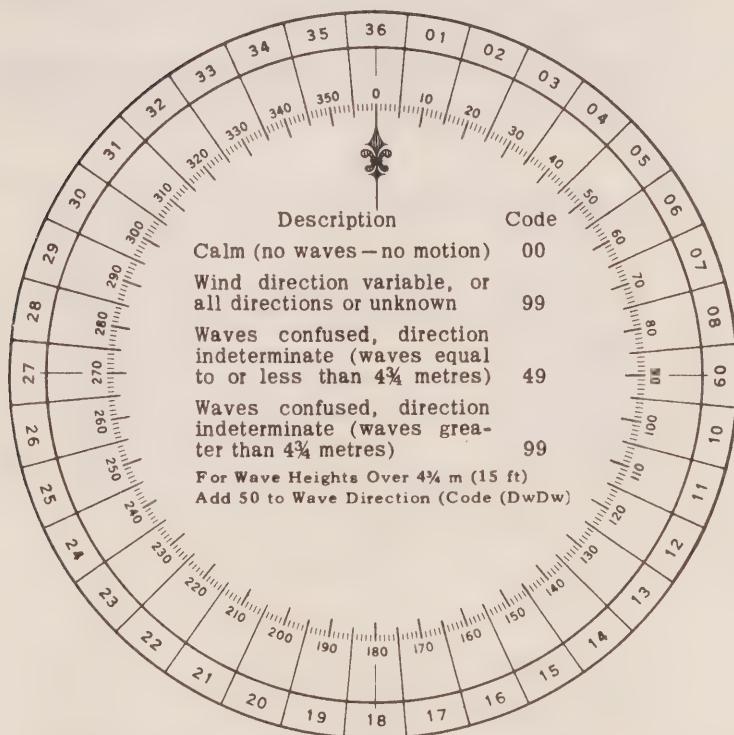
**Table 1**  
**CONVERSION**  
**MINUTES TO  $\frac{1}{10}$  HRS.**

Minutes	Tenths Hrs.
00-03	0
04-08	1
09-15	2
16-20	3
21-27	4
28-32	5
33-39	6
40-44	7
45-51	8
52-56	9
57-59	0 (next HR.)

**Table 2**  
**WATER COLOR CODE**  
**Based on Percentage Yellow**

Code:	Description
00	Deep Blue
10	Blue
20	Greenish Blue
30	Bluish Green
40	Green
50	Light Green
60	Yellowish Green
70	Yellow Green
80	Green Yellow
90	Greenish Yellow
99	Yellow

**Table 3. DIRECTION CODE (dd)**



**NOTE:**

Always use the true direction from which the wind is blowing, or the direction from which Waves I (sea), or Waves II (swell) come.

**Table 4. PERIOD OF THE WAVES (P<sub>w</sub>)**  
 (Measure to the Nearest Second)

Code:	Period in Seconds:	Code:	Period in Seconds:
2	5 sec. or less	8	16 or 17 sec.
3	6 or 7 sec.	9	18 or 19 sec.
4	8 or 9 sec.	0	20 or 21 sec.
5	10 or 11 sec.	1	Over 21 sec.
6	12 or 13 sec.	X	Calm, or period not determined
7	14 or 15 sec.		

**Table 5. HEIGHT OF THE WAVES (H<sub>w</sub>)**

- The average value of the wave height (vertical distance between trough and crest) is reported, as obtained from the larger well formed waves of the wave system being observed.
- Each code figure provides for reporting a range of heights. For example: 1 =  $\frac{1}{4}$  m (1 ft) to  $\frac{3}{4}$  m (2 $\frac{1}{2}$  ft); 5 =  $2\frac{1}{4}$  m (7 ft) to  $2\frac{3}{4}$  m (9 ft); 9 =  $4\frac{1}{4}$  m (13 $\frac{1}{2}$  ft) to  $4\frac{3}{4}$  m (15 ft), etc.
- If a wave height comes exactly midway between the heights corresponding to two code figures, the lower code figure is reported; e.g. a height of  $2\frac{3}{4}$  m is reported by code figure 5.

Code	Code
0 Less than $\frac{1}{4}$ m (1 ft)	0 5 m (16 ft)
1 $\frac{1}{2}$ m (1 $\frac{1}{2}$ ft)	1 $5\frac{1}{2}$ m (17 $\frac{1}{2}$ ft)
2 1 m (3 ft)	2 6 m (19 ft)
3 $1\frac{1}{2}$ m (5 ft)	Add 3 $6\frac{1}{2}$ m (21 ft)
4 2 m (6 $\frac{1}{2}$ ft)	50 4 7 m (22 $\frac{1}{2}$ ft)
5 $2\frac{1}{2}$ m (8 ft)	to 5 $7\frac{1}{2}$ m (24 ft)
6 3 m (9 $\frac{1}{2}$ ft)	Dw Dw 6 8 m (25 $\frac{1}{2}$ ft)
7 $3\frac{1}{2}$ m (11 ft)	7 $8\frac{1}{2}$ m (27 ft)
8 4 m (13 ft)	8 9 m (29 ft)
9 $4\frac{1}{2}$ m (14 ft)	9 $9\frac{1}{2}$ m (30 $\frac{1}{2}$ ft) or more
x Height not determined	

**Table 6. WIND FORCE CODE**

The Beaufort force of the wind is estimated from the appearance of the sea surface, according to the table below. This table is only intended as a guide to show roughly what may be expected on the open sea, remote from land. Factors which must be taken into account are the "lag" effect between the wind increasing and the sea getting up; and the influence of "fetch", depth, swell, heavy rain and tide effect on the appearance of the sea. Estimation of the wind force by this method becomes unreliable in shallow water or when close inshore, owing to the tidal effect and the shelter provided by the land.

Code	Appearance of sea if fetch and duration of the blow have been sufficient to develop the sea fully	Description
00	Sea like a mirror	Calm
01	Ripples with the appearance of scales are formed, but without foam crests.	Light Air
02	Small wavelets; crests have a glassy appearance and do not break.	Light Breeze
03	Large wavelets; crests begin to break; foam of glassy appearance; perhaps scattered white horses.	Gentle Breeze
04	Small waves, becoming longer; fairly frequent white horses.	Moderate breeze
05	Moderate waves; many white horses are formed (chance of some spray)	Fresh Breeze
06	Large waves; white foam crests everywhere (probably some spray)	Strong Breeze
07	Sea heaps up and white foam from breaking waves begins to be blown in streaks along the direction of the wind.	Near Gale
08	Moderately high waves; edges of crests begin to break into the spindrift; foam is blown in well-marked streaks along the direction of the wind.	Gale
09	High waves; dense streaks of foam along wind; crests begin to topple, tumble and roll over; spray may affect visibility.	Strong Gale
10	Very high waves with long overhanging crests; foam in great patches blown in dense white streaks along wind; sea surface takes a white appearance; tumbling becomes heavy and shock-like; visibility affected.	Storm
11	Exceptionally high waves (medium sized ships may be lost to view behind waves); sea covered with long white patches of foam lying along the wind; everywhere edges of crests are blown into froth; visibility affected.	Violent Storm
12	Air is filled with foam and spray; sea completely white with driving spray; visibility seriously affected.	Hurricane

Table 7. PRESENT WEATHER  
W.W. CODE

NO PRECIPITATION ON STATION AT TIME OF OBSERVATION

No meteors except photometeors	Code figure ww	
	00	Cloud development not ob- served or not observable
	01	Clouds generally dissolving or becoming less developed
	02	State of sky on the whole unchanged
	03	Clouds generally forming or developing
	04	Visibility reduced by smoke, e.g. veldt or forest fires, industrial smoke or volcanic ashes
	05	Haze
	06	Widespread dust in suspension in the air, not raised by wind at or near the station at the time of observation
	07	Dust or sand raised by wind at or near the sta- tion at the time of observation, but no well de- veloped dust whirl(s) or sand whirl(s), and no duststorm or sandstorm seen
	08	Well developed dust whirl(s) or sand whirl(s) seen at or near the station during the preced- ing hour or at the time of observation, but no dustorm or sandstorm
	09	Duststorm or sandstorm within sight at the time of observation, or at the station during the pre- ceding hour
	10	Mist
	11	Patches of shallow fog or ice fog at the sta- tion, whether on land or sea, not
	12	More or less deeper than about 2 metres on continuous land or 10 metres at sea
	13	Lightning visible, no thunder heard
	14	Precipitation within sight, not reaching the ground or the surface of the sea
	15	Precipitation within sight, reaching the ground or the surface of the sea, but distant (i.e., esti- mated to be more than 5 km) from the station
	16	Precipitation within sight, reaching the ground or the surface of the sea, near to, but not at the station
	17	Thunderstorm, but no precipitation at the time of observation
	18	Squalls at or within sight of the sta- tion during the preceding hour
	19	Funnel clouds or at the time of observation

ww = 20 - 29	Precipitation, fog, ice fog or thunderstorm at the station during the preceding hour but not at the time of observation
20	Drizzle (not freezing) or snow grains
21	Rain (not freezing)
22	Snow
23	Rain and snow or ice pellets, type (a)
24	Freezing drizzle or freezing rain
25	Shower(s) of rain
26	Shower(s) of snow, or of rain and snow
27	Shower(s) of hail, or of rain and hail
28	Fog or ice fog
29	Thunderstorm (with or without precipitation)
ww = 30 - 39	Duststorm, sandstorm, drifting or blowing snow
30	Slight or mo- derate dust- storm or sand- storm
31	- has decreased during the preceding hour
32	- no appreciable change during the preceding hour
33	- has begun or has increased during the preceding hour
34	Severe dust- storm or sand- storm
35	- has decreased during the preceding hour
36	- no appreciable change during the preceding hour
37	- has begun or has increased during the preceding hour
38	Slight or moderate blowing snow
39	Heavy blowing snow
ww = 40 - 49	Fog or ice fog at the time of observation
40	Fog or ice fog at a distance at the time of ob- servation, but not at the station during the pre- ceding hour, the fog or ice fog extending to a level above that of the observer
41	Fog or ice fog in patches
42	Fog or ice fog, sky visible
43	Fog or ice fog, sky invisible
44	Fog or ice fog, sky visible
45	Fog or ice fog, sky invisible
46	Fog or ice fog, sky visible
47	Fog or ice fog, sky invisible
48	Fog, depositing rime, sky visible
49	Fog, depositing rime, sky invisible

NO PRECIPITATION ON STATION AT TIME OF OBSERVATION

## PRECIPITATION ON STATION AT TIME OF OBSERVATION

ww = 50 - 59 Drizzle

50	Drizzle, not freezing, intermittent	slight at time of observation
51	Drizzle, not freezing, continuous	
52	Drizzle, not freezing, intermittent	moderate at time of observation
53	Drizzle, not freezing, continuous	
54	Drizzle, not freezing, intermittent	heavy (dense) at time of observation
55	Drizzle, not freezing, continuous	
56	Drizzle, freezing, slight	
57	Drizzle, freezing, moderate or heavy (dense)	
58	Drizzle and rain, slight	
59	Drizzle and rain, moderate or heavy	

ww = 60 - 69 Rain

60	Rain, not freezing, intermittent	slight at time of observation
61	Rain, not freezing, continuous	
62	Rain, not freezing, intermittent	moderate at time of observation
63	Rain, not freezing, continuous	
64	Rain, not freezing, intermittent	heavy at time of observation
65	Rain, not freezing, continuous	
66	Rain, freezing, slight	
67	Rain, freezing, moderate or heavy	
68	Rain or drizzle and snow, slight	
69	Rain or drizzle and snow, moderate or heavy	

70 - 79 Solid precipitation not in showers

70	Intermittent fall of snow flakes	slight at time of observation
71	Continuous fall of snow flakes	
72	Intermittent fall of snow flakes	moderate at time of observation
73	Continuous fall of snow flakes	
74	Intermittent fall of snow flakes	heavy at time of observation
75	Continuous fall of snow flakes	
76	Ice prisms (with or without fog)	
77	Snow grains (with or without fog)	
78	Isolated starlike snow crystals (with or without fog)	
79	Ice pellets, type (a)	

ww = 80 - 99 Showery precipitation, or precipitation with current or recent thunderstorm

80	Rain shower(s), slight	
81	Rain shower(s), moderate or heavy	
82	Rain shower(s), violent	
83	Shower(s) of rain and snow mixed, slight	
84	Shower(s) of rain and snow mixed, moderate or heavy	
85	Snow shower(s), slight	
86	Snow shower(s), moderate or heavy	
87	Shower(s) of snow pellets or ice pellets, type (b), with or without rain	- slight - moderate or heavy
88	or rain and snow mixed	
89	Shower(s) of hail, with or without rain or rain and snow mixed, not associated with thunder	- slight - moderate or heavy
90		
91	Slight rain at time of observation	
92	Moderate or heavy rain at time of observation	thunderstorm during the preceding hour but not at time of observation
93	Slight snow, or rain and snow mixed or hail at time of observation	
94	Moderate or heavy snow, or rain and snow mixed or hail at time of observation	
95	Thunderstorm, slight or moderate, without hail, but with rain and/or snow at time of observation	thunderstorm at time of observation
96	Thunderstorm, slight or moderate, with hail at time of observation	
97	Thunderstorm, heavy, without hail, but with rain and/or snow at time of observation	
98	Thunderstorm, combined with duststorm or sandstorm at time of observation	
99	Thunderstorm, heavy, with hail at time of observation	

## PRECIPITATION ON STATION AT TIME OF OBSERVATION

**Table 8. CLOUD TYPE CODE**

Code	Cloud Type	Code	Cloud Type
0	Cirrus .....	5	Nimbostratus .....
1	Cirrocumulus .....	6	Stratocumulus .....
2	Cirrostratus .....	7	Stratus .....
3	Altocumulus .....	8	Cumulus .....
4	Altostratus .....	9	Cumulonimbus .....
X	Cloud not visible owing to darkness, fog, duststorm, sandstorm, or other analogous phenomena		

**Table 9. CLOUD AMOUNT CODE**

Code	Cloud Cover	Code	Cloud Cover
0	0	6	6 oktas
1	1 okta or less, but not zero	7	7 oktas or more, but not 8 oktas
2	2 oktas	8	8 oktas
3	3 oktas	9	Sky obscured, or cloud amount cannot be estimated
4	4 oktas		
5	5 oktas		

Note: 1 okta =  $\frac{1}{8}$  of the sky covered**Table 10. VISIBILITY**

Code	Estimate of hor. Visibility	
0	Less than 50 metres	(less than 55 yards)
1	50–200 metres	(approx. 55–220 yards)
2	200–500 metres	(approx. 220–550 yards)
3	500–1,000 metres	(approx. 550 yards– $\frac{5}{8}$ n.m.)
4	1–2 km	(approx. $\frac{5}{8}$ –1 n.m.)
5	2–4 km	(approx. 1–2 n.m.)
6	4–10 km	(approx. 2–6 n.m.)
7	10–20 km	(approx. 6–12 n.m.)
8	20–50 km	(approx. 12–30 n.m.)
9	50 km or more	(30 n.m. or more)

Note: n.m. = nautical mile

**TABLE 11. INSTITUTE CODE**

Code	Institute
01	Marine Ecology Laboratory, Bedford Institute
02	Pacific Oceanographic Group
03	Biological Station, St. Andrews, N.B.
04	Arctic Biological Station, Ste. Anne de Bellevue, P.Q.
05	Biological Station, St. John's Nfld.
06	Station de Biologie Marine, Grande Riviere, P.Q.
07	Marine Sciences Branch, Central Region
08	Defence Research Establishment, Atlantic
09	Defence Research Establishment, Pacific
10	Atlantic Oceanographic Laboratory, Bedford Institute
11	Polar Continental Shelf Project
12	Great Lakes Institute
13	Institute of Oceanography, University of British Columbia
14	Institute of Oceanography, Dalhousie University
15	Marine Sciences Branch, Pacific Region
16	Department of Transport
17	Marine Sciences Centre, McGill University
18	Canadian Forces Maritime Command, East Coast
19	Canadian Forces Maritime Command, West Coast
20	Ontario Water Resources Commission
21	Dept. of National Health and Welfare
22	Inland Waters Branch, Dept. of Energy, Mines and Resources.



### SECTION III

Serial oceanographic data



GENERAL INFORMATION

Institute: Atlantic Oceanographic Laboratory  
Observation platform: CSS "HUDSON"  
Vessel's cruising speed: 14 knots  
Total number of stations occupied: 119  
Barometer readings: Aneroid Barometer (corrected)  
Air temperature: Sling Psychrometer  
Wet bulb temperature: Sling Psychrometer  
Surface sea water temperature: Reversing Thermometer

The following Standard Deviations were used to express both measurement and interpolation error estimates.

Temperature - 0.02
Salinity - 0.003



C-REF-NO 001 YR 1967 DEPTH 463 WAVES 1 0849 AIR T 06.5 VIS 8  
 CONS. NO 001 MONTH 1 MXSAMPO 04 WAVES 2 08XX WET B 04.3 STN  
 LAT 64-196N DAY 24 NO.DPTH 10 WND-DIR 080 WW-CODE 02  
 LON 26-583W HR 08.0 W-COLOR WND-SPD 23 CLD-TPE 7  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 1005.3 CLD-AMT 8 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
080	0001	0703	35184	660	2758	14794						063
080	0024	0698	35183	659	2759	14796						064
080	0072	0699	35181	659	2758	14804						059
080	0119	0700	35179	658	2758	14812						057
080	0166	0700	35179	656	2758	14820						060
080	0216	0698	35180	655	2758	14828						059
080	0266	0695	35179	655	2759	14835						060
080	0317	0694	35180	653	2759	14843						058
080	0368	0688	35182	651	2760	14849						062
080	0416	0676	35180	646	2761	14852						065

C-REF-NO 001 YR 1967 DEPTH .845 WAVES 1 0523 AIR T 05.0 VIS 8  
 CONS. NO 002 MONTH 1 MXSAMPD 08 WAVES 2 5840 WET B 03.2 STN  
 LAT 64-318N DAY 24 NO.DPTH 18 WND-DIR 050 WW-CODE 01  
 LON 27-431W HR 11.3 W-COLOR WND-SPD 23 CLD-TPE 5  
 MARSD SQ 219 C/I 1810 W-TRNSP BARD 1006.4 CLD-AMT 6 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SID	PH
113	0006	0718	35182	654	2756	14801						060
113	0026	0719	35180	654	2755	14805						063
113	0075	0719	35183	656	2756	14813						068
113	0125	0718	35184	647	2756	14821						063
113	0173	0713	35175	645	2756	14826						065
113	0222	0706	35172	637	2757	14832						068
113	0271	0697	35164	656	2757	14836						063
113	0321	0695	35166	651	2758	14843						066
113	0421	0694	35164	652	2758	14860						065
113	0471	0694	35161	649	2757	14868						067
113	0521	0677	35148	627	2759	14869						074
113	0571	0655	35138	596	2761	14869						083
113	0622	0634	35126	541	2763	14869						087
113	0671	0598	35093	518	2765	14862						104
113	0720	0583	35090	577	2767	14864						105
113	0768	0560	35078	582	2769	14862						100
113	0792	0546	35068	581	2770	14861						100
113	0814	0522	35049	587	2771	14854						109

C-REF-NO 001 YR 1967 DEPTH 188 WAVES 1 0546 AIR T 04.0 VIS 7  
 CONS. NO 003 MONTH 1 MXSAMPD 01 WAVES 2 05XX WET B 02.0 STN  
 LAT 65-21ON DAY 28 NO.DPTH 8 WND-DIR 050 WW-CODE 03  
 LON 26-362W HR 22.3 W-COLOR WND-SPD 20 CLD-TPE 6  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 1002.9 CLD-AMT 6 HW

O B S E R V E D

C-REF-NO 001 YR 1967 DEPTH 356 WAVES 1 0546 AIR T 04.0 VIS 7  
 CONS. NO 004 MONTH 1 MXSAMPD 03 WAVES 2 05XX WET B 02.5 STN  
 LAT 65-288N DAY 29 NO.DPTH 12 WND-DIR 050 WW-CODE 03  
 LON 27-066W HR 00.3 W-COLOR WND-SPD 19 CLD-TPE 7  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 1003.9 CLD-AMT 7 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
003	0004	0671	35177	672	2762	14782		086		126	064	
003	0053	0672	35179	668	2762	14791		101		125	065	
003	0101	0673	35182	664	2762	14799		097		121	065	
003	0149	0672	35178	663	2762	14806		100		127	064	
003	0172	0669	35173	663	2762	14809		100		126	065	
003	0196	0668	35178	663	2762	14812		101		128	064	
003	0220	0665	35176	665	2763	14815		103		130	065	
003	0243	0663	35179	665	2763	14818		103		127	066	
003	0267	0661	35177	665	2763	14821		100		126	064	
003	0292	0650	35176	669	2765	14821		105		126	061	
003	0317	0643	35173	669	2765	14822		110			063	
003	0342	0643	35172	669	2765	14827		096		129	063	

C-REF-NO 001 YR 1967 DEPTH 657 WAVES 1 0436 AIR T 05.1 VIS 8  
 CONS. NO 005 MONTH 1 MXSAMPD 06 WAVES 2 04XX WET B 03.3 STN  
 LAT 65-372N DAY 29 NO-DPTH 16 WND-DIR 040 WH-CODE 02  
 LON 27-350W HR 02.7 W-COLOR WND-SPD 19 CLD-TPE 6  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 1004.1 CLD-AMT B HH

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
027	0001	0667	35158	669	2761	14780		100		132	062	
027	0031	0665	35150	663	2761	14784		102		132	062	
027	0088	0666	35155	665	2761	14794		098		125	061	
027	0140	0667	35155		2761	14803		100		128	064	
027	0243	0667	35151	659	2760	14819		097		130	061	
027	0344	0668	35157	659	2761	14837		092		130	062	
027	0394	0664	35158	644	2761	14843		085		131	067	
027	0441	0649	35144	623	2762	14845		085		136	075	
027	0466	0640	35138	615	2763	14845		092		136	078	
027	0490	0632	35136	619	2764	14846		094		125	077	
027	0513	0634	35144	629	2764	14851		100		133	074	
027	0537	0631	35152	642	2765	14854		095		131	069	
027	0562	0629	35150	642	2765	14857		092		134	069	
027	0586	0628	35142	638	2765	14860		094		134	071	
027	0611	0628	35144	639	2765	14865		091		131	069	
027	0636	0622	35143	629	2766	14866		093		135	074	

C-REF-NO 001 YR 1967 DEPTH 809 WAVES 1 0436 AIR T 04.5 VIS 8  
 CONS. NO 006 MONTH 1 MXSAMPD 07 WAVES 2 04XX WET B 23.4 STN  
 LAT 65-433N DAY 29 NO.DPTH 18 WND-DIR 040 WW-CODE 02  
 LON 27-534W HR 06.3 W-COLOR WND-SPD 16 CLD-TPE 6  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 1003.8 CLD-AMT 7 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
063	0013	0660	35159	670	2762	14779		089		128	066	
063	0042	0660	35158	660	2762	14784		089		129	065	
063	0092	0660	35159	662	2762	14792		091		130	065	
063	0142	0661	35158	661	2762	14801		092		126	064	
063	0193	0662		661				088		118	064	
063	0242	0662	35164	661	2762	14817		095		127	064	
063	0340	0663	35158	659	2761	14834		089		108	065	
063	0438	0659	35158	649	2762	14848		094		123	067	
063	0488	0651	35149	631	2762	14853		084		112	075	
063	0537	0637	35138	617	2763	14856		094		122	077	
063	0563	0629	35141	621	2765	14857		091		115	078	
063	0588	0623	35148	634	2766	14859		087		125	075	
063	0613	0621	35148	641	2766	14862		109		122	073	
063	0639	0620	35148	640	2766	14866		103		120	074	
063	0666	0615	35141	636	2767	14868		083		100	078	
063	0692	0593	35112	613	2767	14864		089		112	087	
063	0719	0558	35078	588	2769	14853		104		136	100	
063	0746	0555	35073	591	2769	14857		101		141	097	

C-REF-NO 001 YR 1967 DEPTH 793 WAVES 1 0322 AIR T 02.2 VIS 8  
 CONS. NO 007 MONTH 1 MXSAMPD 07 WAVES 2 5432 WET B 01.6 STN  
 LAT 65-463N DAY 29 NO.DPTH 18 WND-DIR 030 WW-CODE 02  
 LON 28-047W HR 09.3 W-COLOR WND-SPD 18 CLD-TPE 6  
 MARSD SO 219 C/I 1810 W-TRNSP BARO 1005.3 CLD-AMT 8 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
093	0002	0660	35160	664	2762	14777		090		119	065	
093	0042	0661	35158	664	2762	14784		089		122	065	
093	0093	0662	35160	672	2762	14793		088		121	072	
093	0145	0662	35161		2762	14802		091		122	069	
093	0196	0663	35164	664	2762	14810					068	
093	0247	0664	35162	661	2762	14819		090		126	070	
093	0348	0664	35159	662	2761	14836		091		122	067	
093	0447	0663	35158	660	2761	14852		089		123	067	
093	0495	0652	35156	638	2763	14855		090		125	077	
093	0542	0623	35133	621	2765	14851		100		125	082	
093	0566	0618	35127	631	2765	14853		095		133	087	
093	0590	0616	35124	619	2765	14856		091		133	088	
093	0613	0613	35123	620	2765	14859		093		127	086	
093	0636	0587	35103	602	2767	14852		097		134	096	
093	0660	0536	35079	655	2772	14835		083		134	079	
093	0683	0404	35065	669	2786	14784		082		135	082	
093	0706	0091	34959	695	2804	14651		092		132	092	
093	0730	0074	34950	692	2804	14647		088		134	094	

C-REF-NO 001 YR 1967 DEPTH 715 WAVES 1 0323 AIR T 02.8 VIS 6  
 CONS. NO 008 MONTH 1 MXSAMPD 07 WAVES 2 0439 WET B 02.6 STN  
 LAT 65-496N DAY 29 NO.DPTH 18 WND-DIR 030 WW-CODE 50  
 LON 28-159W HR 11.7 W-COLOR WND-SPD 13 CLD-TPE 7  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 1005.5 CLD-AMT 8 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	NO2	NO3	SIO	PH
117	0007	0654	35156	672	2763	14776		076			071	
117	0031	0655	35160	661	2763	14780		078		143	066	
117	0080	0656	35158	664	2762	14788		076		143	066	
117	0129	0656	35156	660	2762	14796		079		136	069	
117	0179	0657	35157	660	2762	14805		080		132	073	
117	0276	0657	35155	658	2762	14821		082		139	072	
117	0325	0657	35153	656	2762	14829		075		141	073	
117	0373	0653	35147	649	2762	14835		078		150	069	
117	0421	0636	35140	627	2764	14836		088		146	079	
117	0469	0626	35140	635	2765	14840		075		140	071	
117	0492	0603	35111	639	2766	14834		080		132	074	
117	0515	0561	35061	643	2767	14821		081		134	076	
117	0539	0522	35040	657	2770	14809		080		132	072	
117	0563	0520	35067	646	2773	14812		075		132	077	
117	0587	0443	35070	647	2782	14784		080		136	080	
117	0611	0322	35018	667	2790	14737		082		131	086	
117	0635	0143	34964	690	2801	14662		091			085	
117	0659	0133	34955	696	2801	14661		090		129	084	

C-REF-NO 001 YR 1967 DEPTH 575 WAVES 1 0435 AIR T 02.3 VIS 5  
 CONS. NO 009 MONTH 1 MXSAMPD 06 WAVES 2 0546 WET B 01.8 STN  
 LAT 65-505N DAY 29 NO.DPTH 16 WND-DIR 040 WW-CODE 50  
 LON 28-251W HR 14.1 W-COLOR WND-SPD 14 CLD-TPE 7  
 MARSD SO 219 C/I 1810 W-TRNSP BARO 1005.8 CLD-AMT B HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	NO2	NO3	SIO	PH
141	0003	0652	35155	677	2763	14774		092		132	071	
141	0037	0652	35154	664	2763	14780		093		133	071	
141	0067	0653	35152	663	2762	14785		093		137	071	
141	0117	0653	35154	661	2763	14793		093		133	072	
141	0166	0653	35153	659	2762	14801		090		134	072	
141	0266	0541	35009	663	2765	14771		089		131	070	
141	0317	0477	34932	681	2767	14752		084		124	075	
141	0368	0405	34849	705	2768	14729		081		118	075	
141	0393	0398	34842	706	2768	14730		082		118	077	
141	0418	0388	34838	706	2769	14730		082		110	077	
141	0443	0367	34807	704	2769	14725		083		111	074	
141	0468	0420	35041	658	2782	14755		093		124	083	
141	0493	0339	35021	672	2789	14724		087		130	082	
141	0516	0186	34977	689	2799	14661		090		123	077	
141	0540	0140	34958	699	2800	14645		086		115	075	
141	0564	0137	34954	699	2800	14647		084		113	076	

C-REF-NO 001 YR 1967 DEPTH 505 WAVES 1 0334 AIR T 01.6 VIS 6  
 CONS. NO 010 MONTH 1 MXSAMPO 05 WAVES 2 0546 WET B 01.0 STN  
 LAT 65-526N DAY 29 NO.DPTH 16 WND-DIR 030 WW-CODE 10  
 LON 28-373W HR 16.0 W-COLOR WND-SPD 12 CLD-TPE 7  
 MARSID SO 219 C/I 1810 W-TRNSP BARO 1006.1 CLD-AMT 8 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
161	0002	0653	35158	669	2763	14774		088		122	071	
161	0027	0653	35155	661	2763	14779		085		122	071	
161	0047	0654	35156	664	2763	14782		091		117	070	
161	0087	0655	35156	663	2762	14789		099		120	072	
161	0136	0655	35156	663	2762	14797		095		118	072	
161	0185	0656	35158	659	2762	14806		096		119	075	
161	0234	0648	35150	655	2763	14810					070	
161	0284	0590	35070	653	2764	14794		091		115	065	
161	0308	0560	35040	656	2766	14786		092		118	065	
161	0334	0567	35071	652	2767	14793				114	065	
161	0358	0519	35028	661	2770	14777				120	067	
161	0383	0406	35037	665	2783	14735		100		114	084	
161	0408	0232	34987	690	2796	14664		093		121	084	
161	0434	0121	34943	704	2801	14619		091		123	083	
161	0459	0090	34932	707	2802	14609		092		110	081	
161	0484	0093	34933	706	2802	14614		086		113	081	

C-REF-NO 001 YR 1967 DEPTH 460 WAVES 1 0222 AIR T 01.3 VIS 6  
 CONS. NO 011 MONTH 1 MXSAMPD 04 WAVES 2 0545 WET B 01.6 STN  
 LAT 65-538N DAY 29 NO.DPTH 14 WND-DIR 020 WW-CODE 10  
 LON 28-487W HR 18.6 W-COLOR WND-SPD 15 CLD-TPE 6  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 1006.5 CLD-AMT B HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	S10	PH
187	0004	0653	35153	670	2762	14775		095		116	068	
187	0052	0655	35152	662	2762	14783		093		128	066	
187	0102	0655	35154	662	2762	14792		095		116	067	
187	0153	0656	35153	661	2762	14800		092		113	065	
187	0203	0649	35147	646	2763	14806		096		121	072	
187	0253	0633	35141	630	2764	14807		095		128	077	
187	0278	0630	35145	636	2765	14810		101		132	076	
187	0302	0630	35146	637	2765	14814		092		134	074	
187	0328	0620	35140	631	2766	14815		094		140	075	
187	0352	0541	35124	628	2775	14787		090		125	079	
187	0376	0174	34956	696	2798	14633		088		122	069	
187	0402	0080	34915	712	2801	14595		089		116	062	
187	0426	0067	34916	712	2802	14593		089		115	069	
187	0450	0067	34917	712	2802	14597		083		116	070	

\*DRY BULB LESS THAN WET BULB TEMPERATURE

C-REF-NO 001 YR 1967 DEPTH 400 WAVES 1 0222 AIR T 00.6 VIS 5  
 CONS. NO 012 MONTH 1 MXSAMPO 04 WAVES 2 0545 WET B 00.1 STN  
 LAT 65-578N DAY 29 NO.DPTH 13 WND-DIR 030 WW-CODE 83  
 LON 28-515W HR 21.2 W-COLOR WND-SPD 14 CLD-TPE 7  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 1006.6 CLD-AMT 8 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	NO2	NO3	SIO	PH
212	0001	0655	35156	665	2762	14775		100			065	
212	0022	0656	35154	664	2762	14779		091		130	064	
212	0074	0657	35153	664	2762	14788		090		127	064	
212	0126	0658	35156	663	2762	14797		093		128	065	
212	0177	0658	35157	663	2762	14805		091		127	065	
212	0201	0653	35156	656	2763	14807		090		128	065	
212	0226	0548	35039	659	2767	14767		088			068	
212	0250	0427	34883	699	2769	14719		084		112	059	
212	0273	0293	34743	722	2771	14665		074		108	056	
212	0297	0237	34809	717	2781	14645		081			060	
212	0321	0067	34914	717	2802	14575		081		113	058	
212	0346	0065	34916	715	2802	14579		078		110	059	
212	0371	0064	34919	714	2802	14582		093		112	060	

C-REF-NO 001 YR 1967 DEPTH 331 WAVES 1 0222 AIR T 01.0 VIS 8  
 CONS. NO 013 MONTH 1 MXSAMPD 03 WAVES 2 0544 WET B 00.4 STN  
 LAT 66-003N DAY 29 NO.DPTH 12 WND-DIR 030 WW-CODE 02  
 LON 28-596W HR 22.4 W-COLOR WND-SPD 14 CLD-TPE 6  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 1004.3 CLD-AMT 8 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
224	0001	0643	35150	665	2764	14770		094		126	064	
224	0019	0647	35147	666	2763	14775		095			064	
224	0068	0647	35147	667	2763	14783		095			064	
224	0118	0632	35128	669	2763	14785		093		126	064	
224	0143	0431	34905	705	2770	14704		091			058	
224	0168	0314	34751	728	2770	14656		091		110	053	
224	0194	0311	34752	732	2770	14659		089			054	
224	0219	0278	34725	732	2771	14649		085			054	
224	0244	0190	34750	733	2780	14615		086		107	053	
224	0269	-0036	34641	765	2785	14516		077		094	048	
224	0294	0088	34897	704	2799	14580		082			057	
224	0318	0089	34912	706	2800	14585		095		110	057	

C-REF-NO 001 YR 1967 DEPTH 245 WAVES 1 0425 AIR T 02.5 VIS 8  
 CONS. NO 014 MONTH 1 MXSAMPD 01 WAVES 2 04XX WET B 01.5 STN  
 LAT 66-001N DAY 30 NO.DPTH 6 WND-DIR 040 WW-CODE 02  
 LON 25-268W HR 12.2 W-COLOR WND-SPD 18 CLD-TPE 6  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 1003.0 CLD-AMT 6 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	PO4	-P-	NO2	NO3	SIO	PH
122	0001	0535	35165	703	2779	14727						066
122	0010	0535	35162	703	2778	14728						068
122	0035	0535	35162	704	2778	14732						067
122	0060	0532	35162	703	2779	14735						065
122	0086	0513	35152	707	2780	14732						058
122	0112	0501	35145	708	2781	14731						061

C-REF-NO 001 YR 1967 DEPTH 325 WAVES 1 0437 AIR T 02.8 VIS 8  
 CONS. NO 015 MONTH 1 MXSAMPD 01 WAVES 2 04XX WET B 02.0 STN  
 LAT 66-067N DAY 30 NO.DPTH 8 WND-DIR 040 WW-CODE 02  
 LON 25-481W HR 13.6 W-COLOR WND-SPD 19 CLD-TPE 6  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 1004.0 CLD-AMT 4 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
136	0003	0628	35178	708	2768	14765						065
136	0012	0628	35177	690	2768	14766						064
136	0022	0628	35179	685	2768	14768						070
136	0047	0628	35178	684	2768	14772						063
136	0072	0610	35174	686	2770	14769						060
136	0096	0592	35171	688	2772	14766						064
136	0122	0590	35172	690	2772	14769						060
136	0148	0590	35170	688	2772	14773						061

C-REF-NO 001 YR 1967 DEPTH 466 WAVES 1 0437 AIR T 03.2 VIS 8  
 CONS. NO 016 MONTH 1 MXSAMPD 05 WAVES 2 04XX WET B 02.3 STN  
 LAT 66-14IN DAY 30 NO.DPTH 14 WND-DIR 040 WW-CODE 03  
 LON 26-043W HR 15.9 W-COLOR WND-SPD 18 CLD-TPE 6  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 1004.8 CLD-AMT 8 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
159	0002	0642	35167	684	2765	14770						067
159	0028	0643	35164	676	2765	14775						068
159	0067	0643	35165	678	2765	14781						068
159	0165	0644	35164	677	2765	14798						068
159	0214	0643	35167	673	2765	14805						069
159	0262	0639	35172	670	2766	14812						068
159	0286	0633	35169	676	2766	14813						068
159	0310	0630	35169	676	2767	14816						069
159	0334	0628	35169	674	2767	14819						069
159	0359	0626	35169	678	2767	14823						069
159	0383	0625	35170	674	2768	14826						069
159	0407	0625	35170	669	2768	14830						069
159	0432	0618	35169	677	2768	14831						067
159	0457	0604	35170	681	2770	14830						067

C-REF-NO 001 YR 1967 DEPTH 567 WAVES 1 0445 AIR T 03.4 VIS 8  
 CONS. NO 017 MONTH 1 MXSAMPD 06 WAVES 2 04XX WET B 02.2 STN  
 LAT 66-162N DAY 30 NO.DPTH 16 WND-DIR 040 WW-CODE 02  
 LON 26-169W HR 17.5 W-COLOR WND-SPD 18 CLD-TPE 6  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 1005.2 CLD-AMT B HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
175	0007	0640	35163	677	2765	14770		085		86	072	
175	0024	0640	35160	670	2765	14773		089		112	072	
175	0050	0639	35158	674	2765	14777		093			072	
175	0074	0639	35159	674	2765	14781		072		85	071	
175	0173	0637	35158	664	2765	14796		093		118	071	
175	0271	0638	35165	669	2765	14813		091		117	070	
175	0321	0628	35160	670	2766	14817		079		112	070	
175	0368	0627	35167	666	2767	14824		071		96	069	
175	0393	0622	35166	691	2768	14826		076		92	069	
175	0417	0594	35142	680	2769	14819		075		98	069	
175	0440	0577	35141	667	2771	14816		079		108	070	
175	0465	0355	35032	675	2788	14727		075		95	077	
175	0488	-0042	34927	695	2809	14554		072		78	095	
175	0512	-0045	34923	695	2809	14556		084		106	096	
175	0535	-0046	34923	703	2809	14559		073		89	094	
175	0559	-0045	34921	700	2808	14564		074		89	092	

C-REF-NO 001 YR 1967 DEPTH 603 WAVES 1 0548 AIR T 03.2 VIS 6  
 CONS. NO 018 MONTH 1 MXSAMPD 06 WAVES 2 05XX WET B 02.2 STN  
 LAT 66-192N DAY 30 NO.DPTH 15 WND-DIR 060 WW-CODE 50  
 LON 26-270W HR 20.6 W-COLOR WND-SPD 19 CLD-TPE 7  
 MARSD SO 219 C/I 1810 W-TRNSP BARO 1005.6 CLD-AMT B HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
206	0002	0633	35170	675	2766	14767		085			066	
206	0056	0634	35158	674	2765	14776		084			065	
206	0106	0622	35149	675	2766	14779		089		116	065	
206	0206	0536	34939	702	2761	14758		078			062	
206	0307	-0007	34661	769	2786	14536		072		98	053	
206	0358	0088	34890	703	2799	14590		073		100	058	
206	0408	0078	34932	706	2803	14595		089			058	
206	0433	0062	34935	709	2804	14592		083			052	
206	0458	0048	34936	710	2805	14590		077		105	061	
206	0482	0029	34939	711	2806	14585		077		105	064	
206	0507	0016	34935	712	2807	14583		071		105	070	
206	0532	-0005	34927	714	2807	14578		080		115	071	
206	0555	-0016	34933	712	2808	14577		087		115	077	
206	0579	-0018	34928	714	2808	14580		086		110	075	
206	0601	-0022	34926	713	2808	14581		082		110	077	

C-REF-NO 001 YR 1967 DEPTH 573 WAVES 1 0548 AIR T 03.0 VIS 6  
 CONS. NO 019 MONTH 1 MXSAMPD 06 WAVES 2 05XX WET B 02.5 STN  
 LAT 66-217N DAY 30 NO.DPTH 16 WND-DIR 050 WW-CODE 50  
 LON 26-355W HR 23.2 W-COLOR WND-SPD 18 CLD-TPE 7  
 MARSD SO 219 C/I 1810 W-TRNSP BARO 1006.0 CLD-AMT 8 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
231	0003	0617	35148	680	2767	14760		085		113	060	
231	0012	0619	35155	679	2767	14763		085		112	058	
231	0060	0619	35150	680	2767	14770		081		122	057	
231	0158	0613	35150	677	2768	14784		079		118	058	
231	0207	0140	34715	748	2781	14586		069		105	057	
231	0257	0089	34873	704	2797	14574		073		109	054	
231	0306	0087	34924	704	2801	14582		073		110	052	
231	0356	0070	34930	709	2803	14583		082		110	058	
231	0380	0059	34933	711	2804	14582		073		111	058	
231	0404	0052	34939	709	2805	14583		076		112	058	
231	0430	0042	34938	709	2805	14582		078		110	058	
231	0454	0029	34935	714	2806	14580		080		113	064	
231	0479	0013	34929	720	2806	14577		074		108	065	
231	0503	-0001	34929	718	2807	14575		079		111	068	
231	0528	-0007	34928	718	2807	14576		078		110	068	
231	0552	-0008	34929	717	2807	14580		071		112	070	

C-REF-NO 001 YR 1967 DEPTH 497 WAVES 1 0548 AIR T 00.1 VIS 6  
 CONS. NO 020 MONTH 1 MXSAMPD 05 WAVES 2 05XX WET B 00.0 STN  
 LAT 66-234N DAY 31 NO.DPTH 16 WND-DIR 030 WW-CODE 52  
 LON 26-436W HR 01.5 W-COLOR WND-SPD 18 CLD-TPE 7  
 MARSD SO 219 C/I 1810 W-TRNSP BARO 1006.0 CLD-AMT 8 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	PO4	-P-	NO2	NO3	SIO	PH
015	0003	0575	35118	701	2770	14743					070	
015	0021	0579	35122	692	2770	14747					070	
015	0051	0271	34802	743	2777	14619					058	
015	0099	0128	34670	760	2778	14563					055	
015	0148	-0008	34614	767	2782	14508					049	
015	0196	0070	34835	706	2795	14555					055	
015	0246	0105	34898	701	2798	14580					060	
015	0296	0098	34924	705	2801	14585					059	
015	0320	0088	34926	706	2801	14585					058	
015	0344	0080	34929	708	2802	14585					058	
015	0369	0068	34932	709	2803	14584	071		108	058		
015	0394	0060	34939	711	2804	14585	057				059	
015	0418	0055	34936	717	2804	14586	065		108	058		
015	0442	0048	34935	713	2805	14587	065		109	061		
015	0466	0031	34935	713	2806	14583	062		110	061		
015	0491	0031	34938	712	2806	14587	063		106	062		

C-REF-NO 001 YR 1967 DEPTH 490 WAVES 1 0435 AIR T -01.1 VIS 3  
 CONS. NO 021 MONTH 1 MXSAMPD 05 WAVES 2 04XX WET B -01.1 STN  
 LAT 66-258N DAY 31 NO.DPTH 16 WND-DIR 040 WW-CODE 75  
 LON 26-558W HR 03.7 W-COLOR WND-SPD 19 CLD-TPE X  
 MARSD SO 219 C/I 1810 W-TRNSP BARO 1005.6 CLD-AMT 9 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	NO2	NO3	SIO	PH
037	0002	-0070	34416	809	2769	14453						050
037	0017	-0068	34417	800	2769	14456						050
037	0041	-0066	34418	800	2769	14461						049
037	0090	-0072	34479	794	2774	14467						058
037	0140	0037	34573	781	2776	14527						061
037	0165	0061	34600	776	2777	14542						060
037	0191	0074	34615	773	2777	14553						072
037	0216	0069	34613	773	2778	14555						061
037	0241	0024	34620	761	2781	14538						060
037	0266	0055	34809	711	2794	14559						064
037	0292	0076	34857	705	2797	14574						071
037	0342	0094	34900	702	2799	14591						065
037	0392	0086	34922	710	2801	14596						064
037	0441	0067	34933	711	2803	14595						064
037	0466	0041	34931	715	2805	14588						068
037	0489	0040	34927	713	2805	14591						071

C-REF-NO 001 YR 1967 DEPTH 426 WAVES 1 0445 AIR T -02.6 VIS 2  
 CONS. NO 022 MONTH 1 MXSAMPD 04 WAVES 2 04XX WET B -02.6 STN  
 LAT 66-282N DAY 31 NO.DPTH 14 WND-DIR 040 WW-CODE 75  
 LON 27-107W HR 07.3 W-COLOR WND-SPD 17 CLD-TPE X  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 1004.8 CLD-AMT 9 HW

## O B S E R V E D

GMT	DFPTH	T E M P	S A L	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
073	0002	-0136	34244	831	2757	14420					040	
073	0028	-0154	34226	823	2756	14415					042	
073	0078	-0151	34244	821	2758	14425					042	
073	0103	-0095	34387	798	2767	14458					047	
073	0128	-0089	34420	792	2770	14465					048	
073	0153	-0089	34450	792	2772	14470					048	
073	0178	-0115	34456	786	2774	14462					047	
073	0202	-0134	34481	784	2776	14457					045	
073	0228	-0074	34570	771	2781	14491					051	
073	0276	0038	34768	719	2792	14553					060	
073	0326	0069	34834	709	2795	14576					062	
073	0375	0073	34901	709	2800	14587					062	
073	0400	0068	34915	713	2802	14589					062	
073	0427	0066	34916	712	2802	14592					062	

\*DEPTH OF BOTTOM OBSERVATION GREATER THAN SOUNDING

C-REF-NO 001 YR 1967 DEPTH WAVES 1 0445 AIR T -02.5 VIS 6  
 CONS. NO 023 MONTH 1 MXSAMPD 04 WAVES 2 04XX WET B -02.5 STN  
 LAT 66-343N DAY 31 NO-DPTH 14 WND-DIR 040 WW-CODE 71  
 LON 27-150W HR 09.9 W-COLOR WND-SPD 18 CLD-TPE 7  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 1003.7 CLD-AMT 8 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
099	0003	-0183	34010	821	2740	14394						042
099	0017	-0183	34010	823	2740	14397						040
099	0041	-0184	34009	822	2740	14400						042
099	0090	-0179	34063	802	2744	14411						036
099	0138	-0166	34231	773	2757	14428						034
099	0187	-0141	34363	781	2767	14450						044
099	0211	-0130	34422	779	2772	14460						047
099	0236	-0146	34452	795	2774	14457						042
099	0262	-0128	34497	794	2778	14470						044
099	0287	-0032	34634	741	2785	14521						053
099	0311	0037	34794	717	2794	14558						058
099	0336	0060	34885	714	2800	14574						061
099	0361	0062	34910	717	2802	14580						062
099	0384	0059	34916	714	2803	14582						064

C-REF-NO 001 YR 1967 DEPTH 338 WAVES 1 0434 AIR T -03.0 VIS 6  
 CONS. NO 024 MONTH 1 MXSAMPD 03 WAVES 2 04XX WET B -03.0 STN  
 LAT 66-396N DAY 31 NO.DPTH 12 WND-DIR 040 WW-CODE 70  
 LON 27-325W HR 11.3 W-COLOR WND-SPD 15 CLD-TPE 7  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 1004.2 CLD-AMT 8 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
114	0003	-0177	34019	822	2740	14397						042
114	0032	-0177	34021	815	2740	14402						042
114	0082	-0176	34022	817	2740	14411						042
114	0131	-0174	34082	823	2745	14421						038
114	0157	-0163	34203	779	2755	14432						036
114	0182	-0152	34274	776	2760	14442						041
114	0207	-0158	34347	786	2766	14445						040
114	0232	-0126	34407	776	2770	14465						046
114	0257	-0100	34464	763	2774	14482						048
114	0282	-0003	34663	733	2786	14534						055
114	0306	0002	34679	732	2787	14540						056
114	0330	0016	34712	724	2789	14551						055

C-REF-NO 001 YR 1967 DEPTH 384 WAVES 1 XX AIR T -03.0 VIS 4  
 CONS. NO 025 MONTH 1 MXSAMPD 04 WAVES 2 XX WET B -03.0 STN  
 LAT 67-075N DAY 31 NO.DPTH 8 WND-DIR 050 WW-CODE 77  
 LON 27-100W HR 20.1 W-COLOR WND-SPD 10 CLD-TPE 7  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 1004.8 CLD-AMT 8 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
201	0008	-0179	33820	800	2724	14394						050
201	0058	-0178	33830	799	2725	14403						053
201	0108	-0154	33865	796	2727	14423						052
201	0159	-0184	33952	795	2735	14419						045
201	0210	-0117	34098	780	2745	14461						049
201	0262	-0073	34320	761	2761	14493						054
201	0315	-0021	34572	738	2779	14529						060
201	0370	-0001	34648	732	2784	14549						061

C-REF-NO 001 YR 1967 DEPTH 460 WAVES 1 XX AIR T -03.0 VIS 4  
 CONS. NO 026 MONTH 1 MXSAMPD 04 WAVES 2 XX WET B -03.0 STN  
 LAT 67-000N DAY 31 NO.DPTH 14 WND-DIR 050 WW-CODE 77  
 LON 26-460W HR 22.6 W-COLOR WND-SPD 10 CLD-TPE X  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 1003.9 CLD-AMT 9 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
226	0002	-0183	33923	795	2733	14393					050	
226	0047	-0183	33973	795	2737	14401					047	
226	0095	-0183	34000	801	2739	14409					045	
226	0144	-0184	34034	798	2742	14418					047	
226	0193	-0173	34154	795	2751	14433					041	
226	0242	-0160	34328	786	2765	14449					041	
226	0267	-0158	34362	789	2767	14455					047	
226	0291	-0158	34389	790	2770	14459					045	
226	0316	-0157	34423	791	2772	14464					048	
226	0340	-0068	34541	756	2779	14512					058	
226	0366	-0024	34630	741	2784	14537					058	
226	0390	0032	34765	722	2792	14569					060	
226	0414	0063	34898	717	2801	14589					062	
226	0438	0067	34916	718	2802	14595					063	

C-REF-NO 001 YR 1967 DEPTH 610 WAVES 1 04XX AIR T -01.1 VIS 2  
 CONS. NO 027 MONTH 2 MXSAMPD 06 WAVES 2 0433 WET B -01.1 STN  
 LAT 66-550N DAY 01 NO.DPTH 16 WND-DIR 050 WW-CODE 49  
 LON 26-315W HR 00.7 W-COLOR WND-SPD 10 CLD-TPE X  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 1002.3 CLD-AMT 9 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	S10	PH
007	0002	-0165	34172	826	2752	14405						038
007	0041	-0150	34263	826	2759	14420						038
007	0088	-0143	34294	824	2762	14431						036
007	0133	-0137	34316	811	2763	14442						045
007	0179	-0073	34482	790	2774	14482						052
007	0274	-0018	34665	737	2787	14525						055
007	0324	0070	34820	711	2794	14576						057
007	0374	0091	34880	707	2798	14594						058
007	0400	0098	34900	706	2799	14602						055
007	0426	0102	34915	706	2800	14608						053
007	0452	0099	34922	708	2800	14611						053
007	0477	0093	34925	712	2801	14613						053
007	0502	0078	34928	714	2802	14610						053
007	0527	0075	34925	715	2802	14613						055
007	0551	0073	34933	715	2803	14616						055
007	0573	0071	34932	708	2803	14619						057

C-REF-NO 001 YR 1967 DEPTH 675 WAVES 1 0422 AIR T -01.5 VIS 3  
 CONS. NO 028 MONTH 2 MXSAMPD 07 WAVES 2 04XX WET B -01.6 STN  
 LAT 66-490N DAY 01 NO.DPTH 16 WND-DIR 040 WW-CODE 73  
 LON 26-127W HR 03.6 W-COLOR WND-SPD 12 CLD-TPE X  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 1000.0 CLD-AMT 9 HW

## O B S E R V E D

GMT	DFPTH	T E M P	S A L	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
036	0001	-0163	34162	826	2751	14406						038
036	0010	-0164	34163	825	2752	14407						037
036	0060	-0161	34211	809	2755	14417						036
036	0161	-0157	34434	790	2773	14439						040
036	0261	-0001	34690	737	2788	14531						052
036	0361	0104	34896	706	2798	14598						053
036	0410	0099	34919	722	2800	14604						055
036	0460	0090	34928	712	2802	14609						053
036	0485	0086	34929	715	2802	14611						052
036	0509	0080	34930	717	2802	14612						053
036	0533	0074	34932	732	2803	14614						055
036	0558	0069	34933	748	2803	14616						055
036	0582	0054	34935	749	2804	14613						055
036	0606	0039	34934	732	2805	14610						060
036	0630	0038	34935	726	2805	14614						060
036	0654	0039	34935	722	2805	14618						059

C-REF-NO 001 YR 1967 DEPTH 682 WAVES 1 0422 AIR T -01.1 VIS 3  
 CONS. NO 029 MONTH 2 MXSAMPD 07 WAVES 2 04XX WET B -01.2 STN  
 LAT 66-460N DAY 01 NO.DPTH 14 WND-DIR 040 WW-CODE 73  
 LON 26-035W HR 05.8 W-COLOR WND-SPD 11 CLD-TPE X  
 MARSID SQ 219 C/I 1810 W-TRNSP BARO 998.5 CLD-AMT 9 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
059	0002	-0160	34186		2753	14408						036
059	0053	-0127	34297	811	2761	14433						040
059	0104	-0148	34421	782	2772	14433						044
059	0155	-0166	34481	801	2777	14434						042
059	0205	-0057	34601	750	2783	14495						050
059	0255	0064	34793	710	2792	14561						058
059	0304	0083	34860	704	2797	14579						053
059	0353	0102	34908	706	2799	14596						057
059	0449	0085	34929	692	2802	14605						055
059	0499	0072	34929	729	2803	14607						056
059	0549	0059	34933	707	2804	14610						055
059	0601	0035	34932	709	2805	14608						060
059	0629	0030	34932	732	2806	14610						062
059	0659	0029	34929	725	2805	14614						061

C-REF-NO 001 YR 1967 DEPTH 728 WAVES 1 0422 AIR T -00.8 VIS 2  
 CONS. NO 030 MONTH 2 MXSAMPD 07 WAVES 2 0433 WET B -00.8 STN  
 LAT 66-431N DAY 01 NO.DPTH 15 WND-DIR 040 WW-CODE 45  
 LON 25-568W HR 08.2 W-COLOR WND-SPD 12 CLD-TPE X  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 995.2 CLD-AMT 9 HW

## O B S E R V E D

GMT	DFPTH	T E M P	S A L	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	S10	PH
082	0000	-0113	34307	812	2762	14431						042
082	0040	-0099	34320	810	2762	14444						042
082	0090	-0160	34399	790	2771	14425						040
082	0140	-0139	34493	789	2778	14445						043
082	0191	0038	34747	709	2790	14538						056
082	0240	0087	34851	704	2796	14570						054
082	0291	0104	34894	703	2798	14587						055
082	0340	0104	34914	706	2799	14595						057
082	0391	0092	34921	714	2801	14598						056
082	0491	0068	34931	717	2803	14604						056
082	0540	0059	34935	720	2804	14608						055
082	0589	0030	34933	724	2806	14603						059
082	0637	0023	34932	722	2806	14608						062
082	0661	0022	34932	724	2806	14612						060
082	0686	0023	34935	723	2806	14616						060

C-REF-NO 001 YR 1967 DEPTH 759 WAVES 1 0623 AIR T 03.0 VIS 7  
 CONS. NO 031 MONTH 2 MXSAMPD 07 WAVES 2 04XX WET B 02.5 STN  
 LAT 66-360N DAY 01 NO.DPTH 18 WND-DIR 060 WW-CODE 51  
 LON 25-378W HR 10.1 W-COLOR WND-SPD 15 CLD-TPE 7  
 MARSD SO 219 C/I 1810 W-TRNSP BARO 993.1 CLD-AMT 8 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
101	0002	0465	35024	710	2776	14696						065
101	0060	0467	35012	705	2774	14707						058
101	0107	0111	34671	763	2779	14556						053
101	0153	0025	34758	748	2792	14526						053
101	0243	0094	34915	711	2800	14575						055
101	0337	0070	34933	713	2803	14580						055
101	0386	0056	34932	711	2804	14581						058
101	0434	0047	34942	719	2805	14585						066
101	0485	0034	34942	715	2806	14588						058
101	0535	0016	34937	722	2807	14588						066
101	0561	0004	34934	721	2807	14587						069
101	0586	-0009	34907	727	2806	14585						072
101	0611	-0016	34925	723	2807	14586						070
101	0635	-0027	34931	721	2808	14585						070
101	0660	-0032	34918	722	2808	14587						072
101	0684	-0044	34920	723	2808	14585						079
101	0708	-0046	34924	722	2809	14588						081
101	0730	-0045	34914	722	2808	14592						081

C-REF-NO 001 YR 1967 DEPTH 440 WAVES 1 0523 AIR T 03.6 VIS 7  
 CONS. NO 032 MONTH 2 MXSAMPD 04 WAVES 2 04XX WET B 03.0 STN  
 LAT 66-308N DAY 01 NO.DPTH 14 WND-DIR 050 WW-CODE 01  
 LON 25-202W HR 11.6 W-COLOR WND-SPD 15 CLD-TPE 6  
 MARSD SO 219 C/I 1810 W-TRNSP BARO 991.1 CLD-AMT 8 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
116	0011	0628	35170	680	2767	14766					061	
116	0029	0629	35172	678	2767	14770					060	
116	0077	0629	35171	680	2767	14777					059	
116	0125	0628	35172	680	2767	14785					058	
116	0172	0627	35172	678	2767	14792					058	
116	0222	0620	35173	683	2768	14798					059	
116	0247	0616	35173	684	2769	14800					059	
116	0272	0614	35171	685	2769	14803					059	
116	0298	0613	35170	684	2769	14807					060	
116	0323	0613	35174	683	2769	14811					059	
116	0348	0613	35171	682	2769	14816					060	
116	0373	0612	35157	684	2768	14819					060	
116	0397	0609	35169	686	2770	14822					057	
116	0420	0517	35137	690	2778	14788					063	

C-REF-NO 001 YR 1967 DEPTH 165 WAVES 1 0523 AIR T 04.0 VIS 8  
 CONS. NO 033 MONTH 2 MXSAMPD 02 WAVES 2 04XX WET B 03.0 STN  
 LAT 66-246N DAY 01 NO.DPTH 8 WND-DIR 050 WW-CODE 01  
 LON 25-015W HR 13.0 W-COLOR WND-SPD 16 CLD-TPE 6  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 989.0 CLD-AMT 7 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	S10	PH
130	0002	0538	35150	704	2777	14728						058
130	0012	0538	35153	704	2777	14730						058
130	0033	0538	35152	705	2777	14733						058
130	0054	0538	35157	703	2778	14737						058
130	0080	0538	35149	703	2777	14741						057
130	0105	0532	35146	706	2777	14743						058
130	0129	0514	35137	710	2779	14739						057
130	0153	0484	35118	717	2781	14730						056

C-REF-NO 001 YR 1967 DEPTH 300 WAVES 1 2323 AIR T 04.0 VIS 4  
 CONS. NO 034 MONTH 2 MXSAMPD 03 WAVES 2 23XX WET B 02.5 STN  
 LAT 65-371N DAY 04 NO.DPTH 12 WND-DIR 230 WW-CODE 72  
 LON 31-562W HR 00.1 W-COLOR WND-SPD 08 CLD-TPE 7  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 989.5 CLD-AMT 8 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SID	PH
001	0001	0645	35129	660	2762	14771						070
001	0020	0641	35126	675	2762	14772						069
001	0045	0592	35073	652	2764	14756						073
001	0075	0587	35065	653	2764	14759						075
001	0095	0542	35009	666	2765	14743						072
001	0120	0543	35024	645	2766	14748						077
001	0145	0502	34978	666	2768	14735						072
001	0170	0391	34837	706	2769	14691						065
001	0195	0356	34815	704	2771	14680						067
001	0220	0279	34737	727	2772	14650						061
001	0245	0300	34792	709	2774	14664						066
001	0270	0193	34764	699	2781	14621						070

C-REF-NO 001 YR 1967 DEPTH 358 WAVES 1 2222 AIR T 02.2 VIS 5  
 CONS. NO 035 MONTH 2 MXSAMPD 03 WAVES 2 2334 WET B 01.8 STN  
 LAT 65-320N DAY 04 NO.DPTH 12 WND-DIR 220 WW-CODE 85  
 LON 31-226W HR 02.1 W-COLOR WND-SPD 12 CLD-TPE 7  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 989.7 CLD-AMT 8 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
021	0003	0670	35150	661	2760	14781						069
021	0027	0670	35150	661	2760	14785						067
021	0077	0667	35147	664	2760	14792						071
021	0127	0660	35142	659	2761	14798						072
021	0153	0651	35135	659	2761	14798						072
021	0179	0633	35111	663	2762	14795						071
021	0203	0619	35094	664	2762	14793						070
021	0229	0612	35090	665	2763	14794						072
021	0253	0602	35076	659	2763	14794						074
021	0277	0578	35045	665	2764	14788						071
021	0300	0553	35025	657	2765	14782						079
021	0324	0457	34971	650	2772	14745						084

C-REF-NO 001 YR 1967 DEPTH 627 WAVES 1 2121 AIR T 02.6 VIS 8  
 CONS. NO 036 MONTH 2 MXSAMPD 05 WAVES 2 2334 WET B 01.8 STN  
 LAT 65-262N DAY 04 NO.DPTH 16 WND-DIR 210 WW-CODE 01  
 LON 30-558W HR 04.0 W-COLOR WND-SPD 11 CLD-TPE  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 990.0 CLD-AMT 0 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
040	0003	0625	35090	669	2761	14763					072	
040	0041	0636	35115	663	2762	14774					071	
040	0090	0653	35136	661	2761	14789					071	
040	0138	0654	35144	665	2762	14797					072	
040	0186	0633	35114	667	2762	14796					072	
040	0233	0604	35089	665	2764	14792					074	
040	0281	0538	35002	678	2765	14772					072	
040	0330	0482	34934	696	2767	14756					066	
040	0353	0464	34949	693	2770	14753					069	
040	0377	0408	34932	664	2775	14733					082	
040	0402	0370	34895	677	2776	14721					082	
040	0426	0364	34902	678	2777	14722					082	
040	0450	0317	34848	703	2777	14706					077	
040	0474	0323	34897	688	2780	14713					081	
040	0499	0281	34887	686	2783	14699					084	
040	0523	0256	34864	688	2784	14692					078	

C-REF-NO 001 YR 1967 DEPTH 912 WAVES 1 2323 AIR T 01.6 VIS 8  
 CONS. NO 037 MONTH 2 MXSAMPC 09 WAVES 2 23XX WET B 00.7 STN  
 LAT 65-207N DAY 04 NO-DPTH 19 WND-DIR 230 WW-CODE 02  
 LON 30-330W HR 06.2 W-COLOR WND-SPD 18 CLD-TPE 9  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 990.2 CLD-AMT 2 HW

## O B S E R V E D

GMT	DFPTH	T E M P	S A L	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
062	0002	0674	35154	679	2760	14783						068
062	0042	0678	35155	661	2759	14791						070
062	0090	0679	35155	661	2759	14799						069
062	0140	0679	35157	659	2759	14807						070
062	0237	0679	35152	659	2759	14823						069
062	0333	0671	35145	661	2759	14836						069
062	0427	0651	35133	621	2761	14843						081
062	0520	0535	35049	585	2769	14811						106
062	0612	0476	35012	601	2773	14801						105
062	0659	0444	34995	611	2776	14796						105
062	0705	0425	34970	622	2776	14795						104
062	0729	0430	34989	620	2777	14801						104
062	0752	0427	34994	620	2777	14804						105
062	0776	0419	34990	623	2778	14805						106
062	0800	0415	34984	628	2778	14807						105
062	0825	0408	34984	628	2779	14808						106
062	0849	0404	34979	626	2779	14810						108
062	0874	0405	34979	628	2779	14815						108
062	0900	0369	34950	649	2780	14804						C93

C-REF-NO 001 YR 1967 DEPTH 1380 WAVES 1 2021 AIR T 00.8 VIS 1  
 CONS. NO 038 MONTH 2 MXSAMPD 14 WAVES 2 2339 WET B 00.4 STN  
 LAT 65-139N DAY 04 NO.DPTH 27 WND-DIR 160 WW-CODE 75  
 LON 30-216W HR 12.6 W-COLOR WND-SPD 20 CLD-TPE X  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 986.1 CLD-AMT 9 HW

## O B S E R V E D

GMT	DFPTH	T E M P	S A L	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	S10	PH
116	0003	0695	35168	657	2758	14791						067
116	0052	0698	35167	656	2757	14801						067
116	0099	0698	35166	656	2757	14808						
116	0146	0699	35170	654	2757	14816						068
116	0193	0699	35166	658	2757	14824						064
116	0283	0698	35165	656	2757	14838						066
116	0373	0684	35142	665	2757	14847						068
116	0464	0670	35140	601	2759	14857						082
116	0555	0635	35113	586	2762	14858						092
116	0648	0592	35083	577	2765	14855						098
116	0696	0555	35052	579	2767	14848						101
116	0744	0541	35040	578	2768	14850						101
116	0793	0531	35048	585	2770	14854						096
116	0842	0507	35028	589	2771	14852						096
116	0892	0491	35013	595	2772	14854						097
116	0942	0483	35011	596	2772	14859						105
130	0983	0457	34999	717	2774	14855						065
116	0993	0462	34997	600	2774	14859						104
116	1045	0461		623								077
126	1137	0370	34920	654	2777	14843						087
126	1162	0346	34897	659	2778	14837						085
126	1188	0306	34853	676	2778	14824						081
126	1217	0236	34794	703	2780	14798						069
126	1248	0161	34765	721	2783	14770						063
126	1281	0147	34771	720	2785	14769						064
126	1316	0146	34770	713	2785	14775						066
126	1354	0146	34774	718	2785	14781						067

C-REF-NO 001 YR 1967 DEPTH 1500 WAVES 1 2123 AIR T -02.5 VIS 6  
 CONS. NO 039 MONTH 2 MXSAMPD 14 WAVES 2 2059 WET B -02.5 STN  
 LAT 65-121N DAY 04 NO.DPTH 29 WND-DIR 230 WW-CODE 86  
 LON 30-030W HR 18.9 W-COLOR WND-SPD 18 CLD-TPE 9  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 980.6 CLD-AMT 8 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
173	0003	0692	35175	683	2759	14790						065
173	0026	0698	35173	658	2758	14796						067
173	0076	0698	35172	659	2758	14805						067
173	0126	0699	35172	659	2758	14813						070
173	0174	0699	35167	656	2757	14821						069
161	0258	0699	35166		2757	14835						
173	0273	0699	35169	656	2757	14837						070
173	0371	0682	35141	642	2758	14846						075
173	0471	0656	35118	597	2759	14852						091
173	0569	0641	35116	581	2761	14862						096
173	0669	0607	35094	578	2764	14865						101
173	0767	0566		575								105
173	0867	0522	35043	586	2770	14863						109
173	0967	0495	35026	594	2772	14868						109
173	1069	0466	35008	607	2774	14873						111
173	1119	0448	34993	617	2775	14874						109
189	1246	0429	34990	622	2777	14887						108
189	1270	0423	34988	623	2777	14889						104
173	1272	0428	34985	620	2777	14891						110
189	1295	0415	34976	628	2777	14889						103
189	1319	0401	34951	646	2777	14887						095
189	1345	0326	34898	670	2780	14859						083
189	1371	0303	34901	664	2782	14854						086
189	1397	0234	34860	683	2785	14828						084
189	1423	0229	34863	683	2786	14830						079
189	1450	0214	34854	689	2786	14828						077

C-REF-NO 001 YR 1967 DEPTH 1710 WAVES 1 2725 AIR T -03.6 VIS 8  
 CONS. NO 040 MONTH 2 MXSAMPD 17 WAVES 2 27XX WET B -04.3 STN  
 LAT 65-067N DAY 06 NO.DPTH 22 WND-DIR 270 WW-CODE 74  
 LON 29-480W HR 03.2 W-COLOR WND-SPD 15 CLD-TPE X  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 1003.1 CLD-AMT 2 HW

## O B S E R V E D

C-REF-NO 001 YR 1967 DEPTH 1550 WAVES 1 2835 AIR T 02.1 VIS 8  
 CONS. NO 041 MONTH 2 MXSAMPD 15 WAVES 2 28XX WET B 00.2 STN  
 LAT 65-000N DAY 06 NO.DPTH 21 WND-DIR 290 WW-CODE 02  
 LON 29-225W HR 07.1 W-COLOR WND-SPD 09 CLD-TPE  
 MARSD SO 219 C/I 1810 W-TRNSP BARO 1013.0 CLD-AMT 0 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
077	0003	0693	35163	664	2758	14790						068
059	0100	0696	35165	659	2757	14808						064
059	0199	0690	35157	664	2758	14821						064
059	0300	0692	35157	664	2757	14839						065
059	0499	0654	35107	666	2759	14856						069
059	0698	0542	35025	594	2767	14843						096
059	0896	0452	34995	616	2775	14838						099
059	0996	0422	34980	629	2777	14842						101
059	1096	0407	34983	634	2779	14853						103
059	1196	0399	34981	634	2779	14866						104
071	1270	0400	34981	635	2779	14879						109
071	1290	0397	34979	634	2779	14881						109
071	1313	0395	34976	637	2779	14884						108
071	1335	0395	34977	638	2779	14888						106
071	1357	0394	34980	638	2780	14891						106
071	1381	0393	34976	638	2780	14895						106
071	1405	0391	34976	638	2780	14898						106
071	1432	0389	34972	639	2780	14901						106
071	1459	0382	34974	638	2781	14903						111
071	1487	0381	34974	638	2781	14907						110
071	1517	0382	34973	637	2780	14913						111

C-REF-NO 001 YR 1967 DEPTH WAVES 1 2523 AIR T 03.5 VIS 8  
 CONS. NO 042 MONTH 2 MXSAMPD 10 WAVES 2 2838 WET B 02.0 STN  
 LAT 64-52ON DAY 06 NO.DPTH 8 WND-DIR 250 WW-CODE 03  
 LON 28-54OW HR 09.4 W-COLOR WND-SPD 15 CLD-TPE 8  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 1017.0 CLD-AMT 2 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
094	0011	0699	35176	679	2758	14794					065	
094	0079	0700	35175	659	2758	14806					065	
094	0272	0703	35173	660	2757	14839					065	
094	0466	0705	35173	660	2757	14871					065	
094	0662	0602	35075	583	2763	14862					098	
094	0761	0529	35024	593	2768	14848					102	
094	0860	0492	35023	597	2772	14849					104	
094	0958	0453	35018	616	2776	14849					104	

C-REF-NO 001 YR 1967 DEPTH WAVES 1 2623 AIR T 04.0 VIS 8  
 CONS. NO 043 MONTH 2 MXSAMPD 11 WAVES 2 28XX WET B 01.5 STN  
 LAT 64-407N DAY 06 NO.DPTH 13 WND-DIR 270 WW-CODE 03  
 LON 28-182W HR 11.7 W-COLOR WND-SPD 16 CLD-TPE 4  
 MARSD SO 219 C/I 1810 W-TRNSP BARO 1018.3 CLD-AMT 5 Hw

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	NO2	NO3	SIO	PH
117	0011	0685	35160	661	2759	14789						069
117	0065	0684	35159	661	2759	14797						065
117	0103	0685	35159	664	2759	14804						065
117	0150	0685	35162	662	2759	14811						065
117	0242	0687	35160	664	2758	14827						065
117	0336	0687	35160	666	2758	14843						065
117	0431	0688	35158	662	2758	14859						065
117	0621	0634	35099	587	2761	14868						090
117	0813	0549	35069	589	2769	14865						101
117	0909	0517	35051	595	2772	14868						101
117	1003	0481	35038	608	2775	14869						100
117	1048	0470	35027	609	2775	14872						104
117	1094	0453	35017	614	2776	14872						104

C-REF-NO 001 YR 1967 DEPTH 897 WAVES 1 2723 AIR T 04.2 VIS 8  
 CONS. NO 044 MONTH 2 MXSAMPD 08 WAVES 2 27XX WET B 01.3 STN  
 LAT 64-328N DAY 06 NO.DPTH 16 WND-DIR 270 WW-CODE 02  
 LON 27-450W HR 14.7 W-COLOR WND-SPD 17 CLD-TPE 0  
 MARSID SQ 219 C/I 1810 W-TRNSP BARO 1021.0 CLD-AMT 7 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
147	0002	0700	35181	661	2758	14793						063
147	0036	0699	35179	659	2758	14798						063
147	0135	0700	35182	659	2758	14815						064
147	0235	0700	35182	659	2758	14832						062
156	0293	0699	35178		2758	14841						
147	0335	0700	35177	659	2758	14848						064
147	0436	0698	35174	650	2758	14864						065
147	0535	0689	35164	630	2758	14876						070
147	0584	0679	35166	612	2760	14881						076
147	0634	0653	35139	589	2761	14878						086
147	0683	0633	35128	595	2763	14878						086
147	0732	0604	35107	579	2765	14875						097
147	0756	0589	35095	581	2766	14872						099
147	0780	0575	35090	581	2768	14871						102
147	0805	0548	35075	594	2770	14864						103
147	0830	0510	35052	600	2773	14852						106

C-REF-NO 001 YR 1967 DEPTH 1887 WAVES 1 XX AIR T -07.1 VIS 9  
 CONS. NO 045 MONTH 2 MXSAMPD 19 WAVES 2 XX WET B -08.3 STN  
 LAT 61-140N DAY 11 NO.DPTH 26 WND-DIR 270 WW-CODE 02  
 LON 40-267W HR 18.6 W-COLOR WND-SPD 03 CLD-TPE 0  
 MARSD SO 221 C/I 1810 W-TRNSP BARO 992.6 CLD-AMT 7 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
190	0000	0230	34244	735	2736	14585					072	
177	0052	0323	34442	734	2744	14637					064	
177	0102	0506	34969	690	2766	14729					082	
177	0152	0510	34977	686	2767	14739					089	
177	0201	0519	34991	683	2767	14751					092	
177	0301	0533	35018	625	2767	14773					089	
177	0401	0480	34973	625	2770	14768					C90	
177	0501	0458	34960	629	2771	14775					C91	
177	0600	0424	34951	629	2774	14777					104	
177	0699	0406	34945	645	2776	14786					C96	
177	0796	0396	34939	681	2776	14798					092	
177	0895	0381	34940	643	2778	14808					098	
177	0993	0368	34933	646	2779	14819					098	
177	1092	0363	34941	650	2780	14833					C99	
177	1190	0356	34948	642	2781	14847					100	
177	1287	0349	34949	648	2782	14860					101	
186	1377	0328	34933	645	2783	14866					101	
186	1482	0311	34923	655	2783	14876					C99	
186	1584	0297	34932	653	2786	14888					107	
186	1687	0255	34898	665	2787	14886					C91	
186	1738	0242	34896	674	2788	14889					093	
186	1762	0232	34894	678	2788	14889					085	
186	1787	0224	34894	685	2789	14890					086	
186	1812	0222	34893	676	2789	14893					C92	
186	1836	0203	34892	680	2790	14889					091	
186	1861	0177	34892	681	2792	14882					083	

C-REF-NO 001 YR 1967 DEPTH 2340 WAVES 1 XX AIR T -05.2 VIS 8  
 CONS. NO 046 MONTH 2 MXSAMPD 23 WAVES 2 XX WET B -06.5 STN  
 LAT 61-050N DAY 11 NO.DPTH 27 WND-DIR WW-CODE 00  
 LON 39-546W HR 23.2 W-COLOR WND-SPD CLD-TPE  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 995.5 CLD-AMT 0 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
225	0001	0352	34627	723	2756	14643		086			064	
225	0051	0391	34717	722	2759	14669		100		128	064	
225	0101	0461	34877	706	2764	14709		093		134	065	
225	0152	0481	34916	701	2765	14726		091		130	070	
225	0201	0502	34960	695	2766	14744		089		130	069	
225	0302	0522	34998	689	2767	14769		091		136	070	
225	0402	0488	34972	628	2769	14771		102			087	
225	0503	0439	34946	624	2772	14767		103			091	
225	0603	0411	34935	631	2774	14772		103		147	092	
225	0702	0388	34926	651	2776	14778		103		142	091	
225	0802	0375	34923	655	2777	14790		105			092	
225	0901	0363	34914	664	2778	14801		099		140	090	
225	1001	0358	34914	666	2778	14815		097		146	090	
225	1100	0359	34924	660	2779	14833		087		142	094	
225	1198	0360	34935	655	2780	14849		099		146	094	
225	1298	0359	34945	651	2781	14866		095		140	096	
232	1412	0352	34948	651	2782	14882		094			100	
232	1613	0333	34952	649	2784	14908		090			104	
232	1814	0313	34951	650	2786	14934		090		139	114	
232	2014	0240	34894	671	2788	14935		075			087	
232	2112	0214	34891	677	2789	14941		086			077	
232	2161	0196	34888	682	2791	14941		089		122	077	
232	2209	0163	34889	688	2793	14935		085		116	072	
232	2233	0156	34888	689	2794	14936		084			070	
232	2258	0150	34893	687	2795	14938		084		118	070	
232	2282	0146	34893	692	2795	14940		085		114	070	
232	2306	0146	34892	693	2795	14944		086		116	069	

C-REF-NO 001 YR 1967 DEPTH 2660 WAVES 1 99XX AIR T -00.3 VIS 8  
 CONS. NO 047 MONTH 2 MXSAMPD 26 WAVES 2 XX WET B -00.6 STN  
 LAT 60-586N DAY 12 NO.DPTH 29 WND-DIR 210 WW-CODE 02  
 LON 39-155W HR 04.6 W-COLOR WND-SPD 03 CLD-TPE  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 997.2 CLD-AMT 0 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
036	0002	0488	34969	690	2769	14705					069	
036	0051	0488	34968	689	2769	14713					070	
051	0086	0488	34970		2769	14719						
036	0101	0489	34969	691	2768	14722					069	
036	0151	0489	34966	688	2768	14730					072	
036	0201	0489	34967	689	2768	14738					072	
036	0300	0490	34968	687	2768	14755					074	
036	0401	0466	34954	642	2770	14762					084	
036	0502	0436	34953	628	2773	14766					087	
036	0601	0413	34941	633	2775	14772					090	
036	0701	0391	34929	648	2776	14780					091	
036	0801	0375	34911	659	2776	14789					087	
036	0901	0366	34912	664	2777	14802					089	
036	1001	0360	34912	667	2778	14816					087	
036	1100	0356	34914	666	2778	14831					087	
036	1198	0355	34922	665	2779	14847					091	
036	1296	0357	34932	655	2780	14865					093	
046	1511	0351	34942	646	2781	14898					103	
046	1711	0342	34954	654	2783	14928					106	
046	1911	0325	34957	652	2785	14955					114	
046	2112	0310	34955	648	2786	14983					120	
046	2310	0286	34948	658	2788	15006					126	
046	2410	0235	34908	672	2789	15001					091	
046	2459	0210	34898	678	2790	14999					082	
046	2508	0164	34888	686	2793	14987					070	
046	2532	0139	34890	692	2795	14980					066	
046	2556	0130	34894	692	2796	14980					067	
046	2581	0127	34895	695	2796	14983					064	
046	2605	0118	34895	694	2797	14984					067	

C-REF-NO 001 YR 1967 DEPTH 2876 WAVES 1 XX AIR T 01.0 VIS 7  
 CONS. NO 048 MONTH 2 MXSAMPD 28 WAVES 2 XX WET B 00.0 STN  
 LAT 60-47ON DAY 12 NO.DPTH 28 WND-DIR WW-CODE 68  
 LON 38-318W HR 08.6 W-COLOR WND-SPD CLD-TPE X  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 998.1 CLD-AMT 9 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
076	0003	0480	34969	693	2770	14702		093		131	070	
076	0052	0481	34967	696	2769	14711		089		121	072	
076	0102	0475	34965	696	2770	14716		100		131	070	
076	0152	0475	34962	693	2770	14724		083		100	074	
076	0202	0476	34962	694	2769	14733		092			072	
076	0302	0474	34960	691	2769	14749		094		130	075	
076	0402	0474	34959	687	2769	14765		097		131	073	
076	0502	0440	34945	633	2772	14767		102		164	086	
076	0601	0415	34933	630	2774	14773		101		142	091	
076	0700	0397	34929	645	2775	14782		105		142	090	
076	0799	0384	34922	655	2776	14793		099		142	087	
076	0898	0372	34913	659	2777	14804		098		142	087	
076	0996	0367	34915	660	2777	14818		114		167	087	
076	1095	0364	34919	660	2778	14834		113		135	087	
076	1194	0361	34922	660	2779	14849		110		135	088	
076	1292	0361	34929	656	2779	14866		1C8		138	089	
086	1452	0360	34944	643	2780	14892		118			096	
086	1655	0349	34945	652	2782	14922		115		140	099	
086	1857	0336	34957	654	2784	14951		1C8		131	106	
086	2058	0321	34954	648	2785	14978		113		134	111	
086	2257	0294	34941	655	2787	15001		107		117	106	
086	2456	0261	34915	662	2787	15020		105			092	
086	2556	0233	34899	671	2789	15025		100			084	
086	2655	0202	34897	691	2791	15029		098		116	077	
086	2755	0145	34895	677	2795	15021		097		112	076	
086	2779	0121	34895	692	2797	15015		091		116	075	
086	2804	0118	34895	700	2797	15018		092		114	070	
086	2829	0118	34894	697	2797	15022		094		115	073	

C-REF-NO 001 YR 1967 DEPTH WAVES 1 0722 AIR T 02.0 VIS 6  
 CONS. NO 049 MONTH 2 MXSAMPD 30 WAVES 2 1944 WET B 02.0 STN  
 LAT 60-282N DAY 12 NO.DPTH 29 WND-DIR 070 WW-CODE 53  
 LON 37-381W HR 14.6 W-COLOR WND-SPD 12 CLD-TPE 5  
 MARSD SO 220 C/I 1810 W-TRNSP BARO 995.9 CLD-AMT 8 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	PO4	-P-	N02	N03	SIO	PH
135	0002	0559	34991	678	2762	14735						065
135	0050	0559	34991	681	2762	14742						065
135	0099	0558	34988	681	2762	14750						064
135	0148	0556	34988	680	2762	14757						064
135	0197	0555	34989	678	2762	14765						069
135	0296	0523	34963	681	2764	14768						070
135	0393	0482	34957	681	2768	14767						084
135	0490	0444	34944	688	2772	14767						086
135	0587	0426	34933	630	2773	14775						088
135	0683	0396	34919	644	2775	14779						086
135	0779	0377	34908	658	2776	14786						084
135	0875	0362	34896	675	2776	14796						081
135	0970	0360	34903	670	2777	14811						084
135	1067	0357	34903	672	2777	14826						084
135	1165	0354	34904	673	2778	14841						085
135	1263	0354	34911	670	2778	14858						087
130	1381	0358	34929		2779	14879						
147	1558	0354	34941	645	2781	14908						099
147	1856	0339	34955	648	2783	14952						106
147	2156	0310	34955	647	2786	14990						120
147	2457	0294	34956	646	2788	15035						130
147	2657	0274	34945	654	2789	15061						125
147	2757	0243	34923	666	2790	15065						103
147	2807	0204	34898	681	2791	15056						081
147	2857	0161	34891	686	2794	15046						071
147	2882	0158	34888	688	2794	15049						069
147	2907	0149	34890	687	2794	15049						069
147	2931	0136	34893	693	2796	15048						069
147	2956	0129	34892	695	2796	15049						072

C-REF-NO 001 YR 1967 DEPTH WAVES 1 0935 AIR T 03.6 VIS 5  
 CONS. NO 050 MONTH 2 MXSAMPD 30 WAVES 2 XX WET B 03.1 STN  
 LAT 60-156N DAY 12 NO.DPTH 27 WND-DIR 090 WW-CODE 61  
 LON 36-490W HR 20.0 W-COLOR WND-SPD 20 CLD-TPE 5  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 985.2 CLD-AMT 8 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
180	0001	0527	34974	706	2764	14721		104			067	
185	0051	0491	34953	692	2767	14714		100		144	068	
185	0100	0492	34953	695	2767	14723		106		122	069	
185	0151	0492	34958	692	2767	14731		097		125	070	
185	0200	0492	34955	692	2767	14739		102			069	
185	0300	0493	34958	691	2767	14756		091		155	069	
185	0400	0440	34922	660	2770	14750		096		159	075	
185	0498	0418	34908	663	2772	14757		092		162	079	
185	0596	0409	34926	637	2774	14770		096		136	086	
185	0692	0387	34915	649	2775	14776		098		135	088	
185	0789	0373	34908	660	2776	14786		095		133	086	
185	0885	0363	34900	667	2777	14798		097		136	084	
185	0982	0359	34901	670	2777	14812		094		131	084	
185	1079	0358	34912	667	2778	14828		096		131	087	
185	1285	0353	34918	668	2779	14861		096		131	089	
200	1492	0354	34941	650	2781	14896		100		135	096	
200	1691	0348	34951	647	2782	14928		098		156	101	
200	1890	0334	34959	643	2784	14955		096			107	
200	2091	0324	34961	644	2785	14985		096		132	114	
200	2292	0308	34962	643	2787	15013		094		122	122	
200	2493	0297	34959	644	2788	15043		096			133	
200	2695	0279	34949	649	2789	15070		092		128	128	
200	2897	0232	34914	666	2790	15084		088		119	099	
200	2923	0217	34903	675	2790	15082		086		145	089	
200	2948	0198	34898	681	2791	15078		092		137	086	
200	2973	0182	34895	691	2792	15075		088		140	083	
200	2998	0155	34892	696	2794	15068		095		133	081	

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C-REF-NO 001	YR 1967	DEPTH		WAVES 1 1633	AIR T 05.5	VIS 7
CONS. NO 051	MONTH 2	MXSAMPD	30	WAVES 2 1739	WET B 03.8	STN
LAT 59-587N	DAY 13	NO.DPTH	28	WND-DIR 140	WW-CODE 01	
LON 35-497W	HR 11.5	W-COLOR		WND-SPD 13	CLD-TPE 8	
MARSD SQ 184	C/I 1810	W-TRNSP		BARO 979.4	CLD-AMT 8	HW

### O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
103	0008	0603	35010	692	2758	14754					064	
103	0056	0602	35013	676	2758	14761					064	
103	0106	0602	35013	678	2758	14769					062	
103	0156	0569	34992	681	2761	14764					064	
103	0205	0563	34990	685	2761	14769					065	
103	0303	0557	34984	681	2762	14783					068	
103	0402	0524	34971	682	2765	14786					070	
103	0499	0496	34989	587	2769	14791					097	
103	0597	0455	34974	599	2773	14790					096	
103	0694	0433	34961	614	2774	14796					095	
103	0792	0410	34948	626	2776	14803					096	
103	0889	0393	34944	640	2777	14812					094	
103	0986	0384	34943	646	2778	14824					095	
103	1082	0374	34946	650	2779	14836					096	
103	1179	0370	34949	646	2780	14851					096	
103	1275	0365	34960	650	2781	14865					097	
115	1548	0353	34972	640	2783	14906					106	
115	1748	0345	34970	644	2784	14936					108	
115	1949	0335	34972	642	2785	14966					112	
115	2150	0325	34972	642	2786	14996					119	
115	2351	0310	34958	649	2786	15024					126	
115	2551	0298	34960	650	2788	15053					127	
115	2749	0278	34945	651	2788	15078					127	
115	2847	0260	34935	656	2789	15087					115	
115	2945	0225	34914	667	2790	15089					097	
115	2993	0193	34902	678	2792	15084					087	
115	3017	0178	34898	685	2793	15081					084	
115	3041	0153	34897	688	2795	15074					089	

C-REF-NO 001 YR 1967 DEPTH 3094 WAVES 1 1434 AIR T 07.3 VIS 8  
 CONS. NO 052 MONTH 2 MXSAMPD 29 WAVES 2 1758 WET B 05.7 STN  
 LAT 59-434N DAY 13 NO.DPTH 28 WND-DIR 140 WW-CODE 02  
 LON 35-045W HR 17.3 W-COLOR WND-SPD 14 CLD-TPE 8  
 MARSD SQ 184 C/I 1810 W-TRNSP BARO 981.4 CLD-AMT 7 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
159	0005	0689	35091	670	2753	14788		084			052	
159	0044	0689	35092	667	2753	14795		088			052	
159	0093	0685	35091	666	2753	14801		084			052	
159	0142	0681	35088	665	2753	14808		085			053	
159	0192	0682	35088	663	2753	14816		094			053	
159	0291	0680	35085	663	2753	14832		086			055	
159	0390	0669	35073	663	2754	14843		086			057	
159	0489	0620	35020	644	2756	14840		096			067	
159	0589	0535	34989	589	2765	14821		109			089	
159	0688	0475	34959	618	2769	14813		110			087	
159	0787	0442	34953	616	2773	14816		107			089	
159	0887	0416	34940	628	2774	14821		102			089	
159	0986	0388	34914	653	2775	14826		103			084	
159	1083	0372	34905	664	2776	14835		098			082	
159	1181	0363	34905	670	2777	14847		099			082	
159	1277	0358	34905	670	2778	14861		095			084	
173	1282	0360	34903	667	2777	14863		100		170	086	
173	1470	0357	34912	666	2778	14894		100		154	088	
173	1662	0354	34933	651	2780	14925		095		150	099	
173	1857	0349	34947	645	2782	14956		103		145	103	
173	2152	0332	34955	645	2784	14999		104		155	110	
173	2451	0313	34955	645	2786	15042		100		147	118	
173	2652		34958	644				094			127	
173	2752	0295	34956	645	2788	15086		097		145	128	
173	2851	0290	34954	649	2788	15101		094		150	126	
173	2901	0285										
173	2926	0281	34950	652	2788	15110		096		150	125	
173	2950	0275	34945	653	2789	15112		094			122	

C-REF-NO 001	YR 1967	DEPTH		WAVES 1 1722	AIR T 06.8	VIS 8
CONS. NO 053	MONTH 2	MXSAMPD	24	WAVES 2 4949	WET B 04.4	STN
LAT 59-309N	DAY 14	NO.DPTH	28	WND-DIR 170	WH-CODE 02	
LON 34-115W	HR 06.6	W-COLOR		WND-SPD 07	CLD-TPE X	
MARSD SQ 184	C/I 1810	W-TRNSP		BARO 976.4	CLD-AMT 8	HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
053	0003	0651	35068	675	2756	14773		076		102	057	
053	0052	0651	35068	668	2756	14781		078		116	056	
053	0102	0652	35068	668	2756	14789		079			056	
053	0152	0651	35066	666	2756	14797		070		98	058	
053	0201	0652	35067	666	2756	14805		069		102	058	
053	0301	0651	35063	662	2756	14821		069		107	058	
053	0400	0597	35054	574	2762	14816		090		133	087	
053	0499	0518	35001	593	2768	14800		093		151	089	
053	0599	0471	34976	598	2771	14797		086		128	094	
053	0698	0432	34960	617	2774	14797		083		124	094	
053	0797	0415	34962	624	2776	14806		098		129	092	
053	0897		34932	640				093		124	091	
053	0996	0368	34929	659	2778	14819		104		141	087	
053	1096	0355	34914	665	2779	14830		093		125	089	
053	1195	0360	34933	654	2780	14849		099		125	090	
053	1292	0363	34945	649	2780	14867		090		123	094	
066	1476	0359	34952	648	2781	14896		084		115	099	
066	1574	0353	34956	641	2782	14910		102		148	099	
066	1672	0347	34951	642	2782	14924		103		148	102	
066	1770	0341	34963	622	2784	14938		098		146	105	
066	1868	0337	34962	639	2784	14953		102		148	106	
066	1966	0333	34964	646	2785	14968		101			108	
066	2065	0328	34964	644	2785	14983		096		136	111	
066	2163	0322	34964	642	2786	14997		101		150	115	
066	2262	0317	34964	644	2786	15012		099			118	
066	2361	0313	34964	640	2787	15027		097		148	121	
066	2412	0312	34965	646	2787	15035		086		131	121	
066	2436	0309	34963	645	2787	15038		096		151	125	

C-REF-NO 001	YR 1967	DEPTH	WAVES 1	1222	AIR T	05.0	VIS	8
CONS. NO 054	MONTH 2	MXSAMPD	25	WAVES 2	49XX	WET B	03.5	STN
LAT 59-151N	DAY 14	NO.DPTH	26	WND-DIR	200	WW-CODE	01	
LON 33-183W	HR 12.3	W-COLOR		WND-SPD	09	CLD-TPE	6	
MARSD SQ 184	C/I 1810	W-TRNSP		BARO	976.4	CLD-AMT	7	HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
113	0001	0652	35068	678	2756	14773						057
113	0050	0653	35065	669	2756	14781						057
113	0100	0649	35056	668	2755	14788						056
113	0151	0628	35039	672	2757	14787						056
113	0200	0615										
113	0301	0592	35003	668	2759	14797						063
113	0402	0554	34976	631	2761	14798						076
113	0502	0493	34948	662	2766	14789						074
113	0602	0468	34954	618	2770	14796						088
113	0701	0435	34931	640	2772	14798						087
113	0799	0420	34934	630	2773	14808						089
113	0898	0394	34919	645	2775	14813						087
113	0997	0377	34911	658	2776	14823						083
113	1096	0376	34923	656	2777	14839						086
113	1196	0366	34916	658	2778	14851						087
113	1296	0363	34927	656	2779	14867						089
123	1465	0363	34940	644	2780	14896						100
123	1568	0360	34952	646	2781	14912						100
123	1670	0356	34959	645	2782	14928						101
123	1773	0353	34962	644	2783	14944						103
123	1876	0347	34966	645	2783	14959						108
123	2080	0339	34966	644	2784	14990						112
123	2181	0336	34970	643	2785	15006						116
123	2282	0330	34969	644	2785	15021						118
123	2379	0324	34968	640	2786	15035						120
123	2475	0319	34968	642	2786	15049						123

C-REF-NO 001 YR 1967 DEPTH WAVES 1 1622 AIR T 04.2 VIS 8  
 CONS. NO 055 MONTH 2 MXSAMPD 21 WAVES 2 4958 WET B 02.4 STN  
 LAT 59-064N DAY 14 NO.DPTH 29 WND-DIR 160 WW-CODE 02  
 LON 32-470W HR 18.2 W-COLOR WND-SPD 08 CLD-TPE 6  
 MARSD SQ 184 C/I 1810 W-TRNSP BARO 978.4 CLD-AMT 8 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	NO2	NO3	SIO	PH
170	0006	0675	35080	667	2754	14783		069		89	052	
170	0055	0677	35082	670	2754	14792		075		88	053	
170	0105	0678	35080	665	2753	14800		073		111	053	
170	0156	0679	35086	662	2754	14809					053	
170	0205	0679	35080	671	2753	14817		075		89	051	
160	0301	0682	35084		2753	14834						
170	0305	0679	35079	648	2753	14833		087			052	
170	0405	0679	35080	668	2753	14850		085		96	C50	
170	0505	0671	35067	665	2753	14863		078		114	051	
170	0605	0610	35036	603	2759	14855		091		134	077	
170	0705	0519	34992	593	2767	14834		093		123	092	
170	0805	0469	34967	604	2771	14830		099		131	C91	
170	0904	0440	34960	618	2773	14834		108		154	088	
170	1004	0411	34940	629	2775	14839		095		114	086	
170	1103	0386	34921	660	2776	14844		090		120	083	
170	1202	0380	34932	650	2777	14859		097		125	086	
170	1302	0374	34935	655	2778	14873		097			085	
182	1495	0373	34958	640	2780	14905		103		143	C96	
182	1599	0370	34960	640	2781	14921		101		148	C94	
182	1701	0365	34963	641	2781	14937		097		143	C94	
182	1803	0362	34964	642	2782	14953		103		146	C98	
182	1854	0361	34964	642	2782	14961		098		145	097	
182	1904	0358	34962	642	2782	14968		108		139	101	
182	1954	0356	34966	643	2783	14976		101		143	100	
182	2002	0353	34967	642	2783	14983		101		143	101	
182	2027		34970	643							103	
182	2051	0346	34969	640	2784	14988		078		97	103	
182	2075	0347	34969	642	2784	14993		076		101	104	
182	2099	0346	34965	644	2783	14996		104		136	109	

C-REF-NO 001 YR 1967 DEPTH WAVES 1 1822 AIR T 04.2 VIS 8  
 CONS. NO 056 MONTH 2 MXSAMPD 13 WAVES 2 49XX WET B 03.0 STN  
 LAT 58-503N DAY L4 NO.DPTH 24 WND-DIR 180 WW-CODE 01  
 LON 32-125W HR 23.1 W-COLOR WND-SPD 09 CLD-TPE X  
 MARSD SO 184 C/I 1810 W-TRNSP BARO 978.0 CLD-AMT 7 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
223	0001	0658	35070	675	2755	14775						055
223	0050	0659	35067	673	2755	14783						057
223	0100	0660	35065	670	2755	14792						056
223	0150	0660	35065	672	2755	14800						057
223	0199	0660	35067	671	2755	14808						058
223	0300	0659	35068	670	2755	14825						057
223	0399	0606	35012	639	2758	14819						069
223	0498	0558	35017	582	2764	14816						088
223	0598	0506	34985	597	2768	14811						089
223	0698	0446	34952	620	2772	14802						090
223	0747	0443	34967	617	2774	14809						093
223	0772	0454	34989	616	2774	14818						091
223	0797	0451										
223	0823	0442	34984	625	2775	14822						092
231	0825	0441	34979	622	2775	14822						092
223	0849	0427	34975	626	2776	14820						094
223	0899	0404	34945	637	2776	14818						C91
231	0926	0394	34930	644	2776	14818						092
231	1029	0375	34917	656	2777	14827						089
231	1131	0365	34918	663	2778	14840						088
231	1181	0364	34919	663	2778	14848						087
231	1230	0362	34917	664	2778	14855						088
231	1280	0364	34925	663	2779	14865						089
231	1328	0371	34945	654	2779	14876						C90

C-REF-NO 001 YR 1967 DEPTH WAVES 1 1621 AIR T 04.1 VIS 8  
 CONS. NO 057 MONTH 2 MXSAMPD 14 WAVES 2 56 WET B 00.8 STN  
 LAT 58-451N DAY 15 NO.DPTH 17 WND-DIR 160 WW-CODE 02  
 LON 31-354W HR 02.3 W-COLOR WND-SPD 07 CLD-TPE 6  
 MARSD SQ 184 C/I 1810 W-TRNSP BARD 979.5 CLD-AMT 8 Hh

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SID	PH
023	0002	0668	35081	676	2755	14779		082			057	
023	0041	0670	35081	671	2754	14787		084			065	
023	0116	0672	35081	671	2754	14800		093			060	
023	0216	0672	35080	670	2754	14816		089			066	
023	0317	0670	35079	669	2754	14832		092			060	
023	0417	0666	35078	664	2755	14847		084			065	
023	0517	0603	35032	541	2759	14838		098			089	
023	0617	0562	35032	573	2765	14838		101			099	
023	0716	0532	35058	587	2770	14842		102			097	
023	0814	0465	35008	614	2774	14830		104			095	
023	0911	0440	35018	629	2778	14836		095			094	
023	1009	0411	35009	634	2780	14840		102			091	
023	1106	0401	35012	642	2782	14852		112			094	
023	1203	0396	35010	643	2782	14866		106			091	
023	1253	0392	35012	645	2783	14873		105			091	
023	1302	0391	35012	643	2783	14881		105			096	
023	1352	0392	35010	642	2782	14890		106			096	

C-REF-NO 001 YR 1967 DEPTH WAVES 1 2537 AIR T 05.5 VIS 8  
 CONS. NO 058 MONTH 2 MXSAMPD 15 WAVES 2 XX WET B 04.5 STN  
 LAT 58-354N DAY 17 NO.DPTH 17 WND-DIR 250 WW-CODE 02  
 LON 31-045W HR 17.9 W-COLOR WND-SPD 16 CLD-TPE 8  
 MARSD SQ 184 C/I 1810 W-TRNSP BARO 969.5 CLD-AMT 7 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
179	0004	0755	35165	656	2749	14815					057	
173	0072	0755	35165	650	2749	14826					057	
173	0171	0758	35170	645	2749	14843					060	
173	0271	0765	35187	644	2749	14863					060	
173	0370	0763	35196	619	2750	14878					064	
173	0471	0722	35159	574	2753	14879					084	
173	0570	0652	35105	539	2759	14867					099	
173	0670	0591	35079	550	2765	14859					102	
173	0769	0545	35070	566	2770	14856					099	
173	0869	0484	35020	602	2773	14847					098	
173	0969	0442	34992	622	2776	14846					099	
173	1069	0422	34986	631	2777	14855					095	
173	1168	0399	34981	640	2779	14861					094	
173	1266	0388	34997	644	2782	14874					096	
173	1365	0379	35004	643	2783	14886					096	
173	1413	0379	35013	643	2784	14895					096	
173	1462	0379	35006	643	2783	14903					094	

C-REF-NO 001 YR 1967 DEPTH WAVES 1 2437 AIR T 04.0 VIS 7  
 CONS. NO 059 MONTH 2 MXSAMPD 17 WAVES 2 XX WET B 03.5 STN  
 LAT 58-279N DAY 17 NO.DPTH 20 WND-DIR 240 WW-CODE 80  
 LON 30-335W HR 21.7 W-COLOR WND-SPD 12 CLD-TPE 8  
 MARSD SO 184 C/I 1810 W-TRNSP BARO 970.0 CLD-AMT 8 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
217	0002	0757	35181	654	2750	14815					057	
217	0051	0758	35182	650	2750	14824					064	
217	0101	0760	35187	649	2750	14833					063	
217	0151	0763	35202	647	2751	14842					060	
205	0204	0759	35205		2752	14850						
217	0252	0758	35203	650	2752	14857					059	
217	0352	0757	35202	653	2752	14873					060	
217	0452	0758	35203	652	2752	14890					059	
217	0552	0755	35198	639	2752	14905					061	
217	0652	0669	35141	551	2759	14888					C99	
217	0752	0587	35102	565	2767	14871					101	
217	0951	0448	34980	602	2774	14846					111	
217	1150	0392	34945	641	2777	14855					104	
217	1250	0383	34961	645	2779	14868					101	
217	1349	0374	34978	645	2782	14881					103	
217	1449	0374	34992	645	2783	14898					100	
217	1500	0376	34991	644	2783	14908					101	
217	1551	0371	34990	644	2783	14914					101	
217	1602	0369	34988	645	2783	14922					104	
217	1652	0368	34992	645	2783	14930					104	

C-REF-NO 001 YR 1967 DEPTH 2505 WAVES 1 2022 AIR T 04.5 VIS 7  
 CONS. NO 060 MONTH 2 MXSAMPD 25 WAVES 2 XX WET B 02.8 STN  
 LAT 58-141N DAY 18 NO.DPTH 28 WND-DIR 200 WW-CODE 02  
 LON 29-541W HR 00.7 W-COLOR WND-SPD 10 CLD-TPE 8  
 MARSD SQ 183 C/I 1810 W-TRNSP BARO 968.5 CLD-AMT 8 HW

## O B S E R V E D

GMT	DFPTH	T E M P	S A L	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
018	0001	0762	35176	655	2749	14817					061	
018	0050	0763	35176	650	2749	14826					063	
018	0100	0764	35174	653	2748	14834					060	
018	0199	0765	35179	655	2749	14851					060	
018	0299	0763	35203	650	2751	14867					062	
018	0398	0759	35203	651	2751	14882					061	
018	0498	0762	35213	653	2752	14899					062	
018	0597	0711	35162	583	2755	14895					087	
018	0697	0651	35130	554	2761	14888					101	
018	0797	0580	35090	567	2767	14875					102	
018	0897	0525	35050	589	2771	14869					100	
018	0997	0475	35019	612	2774	14865					102	
018	1097	0449	35001	625	2776	14871					099	
018	1197	0410	34980	639	2778	14871					098	
018	1296	0400	34991	641	2780	14883					096	
018	1395	0381	34990	643	2782	14892					099	
007	1465	0364	34992	642	2784	14897					099	
007	1566	0339	34998	651	2787	14903					104	
007	1667	0327	35005	649	2789	14915					105	
007	1769	0321	35005	650	2789	14930					106	
007	1869	0313	35004	651	2790	14944					107	
007	1970	0308	35005	654	2790	14959					108	
007	2071	0301	35005	654	2791	14973					109	
007	2171	0294	35004	654	2792	14987					111	
007	2270	0291	35002	653	2792	15002					109	
007	2368	0287	35001	655	2792	15018					109	
007	2417	0287	35005	656	2792	15026					110	
007	2465	0290	35006	652	2792	15035					111	

C-REF-NO 001 YR 1967 DEPTH 2255 WAVES 1 4921 AIR T 03.9 VIS 8  
 CONS. NO 061 MONTH 2 MXSAMPD 22 WAVES 2 4943 WET B 01.7 STN  
 LAT 58-055N DAY 18 NO.DPTH 28 WND-DIR 070 WW-CODE 02  
 LON 29-261W HR 04.3 W-COLOR WND-SPD 07 CLD-TPE  
 MARSD SQ 183 C/I 1810 W-TRNSP BARO 964.9 CLD-AMT 0 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
053	0001	0770	35150	647	2746	14820					062	
053	0050	0772	35149	649	2745	14829					061	
053	0100	0769	35150	649	2746	14836					060	
053	0150	0766	35160	648	2747	14843					060	
053	0200	0766	35169	649	2748	14851					062	
053	0301	0781	35217	641	2749	14874					059	
053	0401	0769	35199	649	2750	14886					060	
053	0501	0759	35198	621	2751	14898					069	
053	0601	0688	35158	607	2758	14887					093	
053	0701	0578	35071	552	2766	14858					110	
053	0800	0494	34992	573	2770	14840					111	
053	0899	0458	34983	547	2773	14841					106	
053	0999	0409	34941	626	2775	14837					104	
053	1098	0390	34931	640	2776	14845					104	
053	1198	0375	34926	649	2777	14856					104	
053	1297	0373	34925	650	2778	14871					103	
043	1414	0369	34943	647	2779	14890					105	
043	1515	0365	34952	648	2781	14905					106	
043	1616	0356	34960	648	2782	14918					110	
043	1718	0348	34970	646	2784	14932					110	
043	1818	0330	34985	647	2787	14942					117	
043	1918	0311	34996	648	2789	14951					118	
043	2018	0287	34997	649	2792	14958					118	
043	2068	0282	34997	651	2792	14964					114	
043	2117	0274	34997	654	2793	14969					110	
043	2166	0272	35000	654	2793	14977					108	
043	2191	0271	35002	654	2793	14980					110	
043	2215	0272	35001	655	2793	14985					112	

C-REF-NO 001 YR 1967 DEPTH 2388 WAVES 1 0420 AIR T 06.9 VIS 8  
 CONS. NO 062 MONTH 2 MXSAMPD 23 WAVES 2 4947 WET B 05.9 STN  
 LAT 57-569N DAY 18 NO-DPTH 28 WND-DIR 040 WW-CODE 02  
 LON 28-536W HR 09.5 W-COLOR WND-SPD 02 CLD-TPE 8  
 MARSD SQ 183 C/I 1810 W-TRNSP BARO 963.3 CLD-AMT 2 HW

## O B S E R V E D

GMT	DFPTH	T E M P	S A L	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
104	0002	0764	35111	655	2743	14817						060
104	0051	0765	35110	648	2743	14826						058
104	0100	0766	35111	650	2743	14834						058
104	0199	0754	35120	622	2746	14846						067
104	0298	0695	35080	553	2751	14839						091
104	0395	0624	35052	529	2758	14826						105
104	0494	0563	35031	539	2764	14818						108
104	0592	0503	35008	571	2770	14809						108
104	0690	0451	34968	596	2773	14803						106
104	0789	0418	34942	618	2774	14806						103
104	0887	0400	34930	633	2775	14814						101
104	0985	0384	34924	646	2776	14824						102
104	1082	0372	34926	654	2778	14835						100
104	1178	0365	34916	658	2778	14848						102
104	1272	0360	34920	660	2779	14862						102
104	1363	0358	34920	660	2779	14876						104
095	1454	0355	34929	653	2780	14890						108
095	1554	0352	34934	653	2780	14906						109
095	1655	0348	34945	649	2782	14921						114
095	1755	0343	34961	645	2783	14936						113
095	1856	0336	34976	644	2785	14951						118
095	1955	0316	34987	646	2788	14959						127
095	2055	0290	34993	652	2791	14965						128
095	2153	0279	34999	651	2793	14977						120
095	2203	0275	34998	650	2793	14984						123
095	2252	0274	34999	654	2793	14992						118
095	2301	0271	34998	653	2793	14999						116
095	2350	0271	34999		2793	15008						116

C-REF-NO 001 YR 1967 DEPTH WAVES 1 2649 AIR T 02.2 VIS 8  
 CONS. NO 063 MONTH 2 MXSAMPD 23 WAVES 2 XX WET B 01.5 STN  
 LAT 57-451N DAY 20 NO.DPTH 28 WND-DIR 260 WW-CODE 02  
 LON 28-040W HR 16.0 W-COLOR WND-SPD 20 CLD-TPE 6  
 MARSD SO 183 C/I 1810 W-TRNSP BARO 974.4 CLD-AMT 8 HW

## O B S E R V E D

C-REF-NO 001 YR 1967 DEPTH WAVES 1 2655 AIR T 02.0 VIS 5  
 CONS. NO 064 MONTH 2 MXSAMPD 27 WAVES 2 7733 WET B 00.0 STN  
 LAT 57-224N DAY 20 NO.DPTH 28 WND-DIR 260 WW-CODE 94  
 LON 27-214W HR 21.3 W-COLOR WND-SPD 27 CLD-TPE  
 MARS0 SQ 183 C/I 1810 W-TRNSP BARO 978.5 CLD-AMT HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	NO2	NO3	SIO	PH
201	0003	0794	35135	677	2741	14829						058
201	0052	0795	35134	644	2741	14838						062
201	0101	0796	35135	644	2741	14846						060
201	0152	0796	35136	643	2741	14854						060
201	0201	0792	35138	639	2741	14861						063
201	0301	0761	35131	603	2745	14865						075
201	0400	0703	35099	555	2751	14859						094
201	0499	0623	35055	534	2759	14843						111
201	0598	0556	35041	548	2766	14832						114
201	0697	0490	34998	576	2771	14821						116
201	0796	0449	34973	597	2773	14820						113
201	0894	0413	34943	623	2775	14821						113
201	0993	0399	34937	634	2776	14832						107
201	1093	0386	34929	646	2777	14843						106
201	1194	0377	34925	650	2777	14856						105
201	1295	0368	34920	658	2778	14869						104
213	1407	0362	34924	656	2779	14885						111
213	1506	0357	34923	655	2779	14900						113
213	1606	0353	34932	652	2780	14915						118
213	1806	0345	34943	650	2782	14946						124
213	2009	0339	34962	649	2784	14978						125
213	2210	0316	34982	644	2788	15003						139
213	2312	0302	34981	638	2789	15014						155
213	2412	0290	34986	637	2790	15026						163
213	2511	0284	34987	641	2791	15041						156
213	2610	0275	34994	645	2792	15054						136
213	2659	0273	34996	651	2793	15061						135
213	2708	0271	34997	656	2793	15069						128

C-REF-NO 001 YR 1967 DEPTH 2723 WAVES 1 25XX AIR T 02.0 VIS . 7  
 CONS. NO 065 MONTH 2 MXSAMPD 27 WAVES 2 7733 WET B 00.5 STN  
 LAT 57-065N DAY 21 NO.DPTH 26 WND-DIR 250 WW-CODE 85  
 LON 26-281W HR 02.4 W-COLOR WND-SPD 25 CLD-TPE X  
 MARSD SQ 183 C/I 1810 W-TRNSP BARO 985.4 CLD-AMT 7 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	NO2	NO3	SIO	PH
010	0003	0776	35136	652	2744	14822						061
010	0052	0777	35131	648	2743	14831						060
010	0100	0777	35136	647	2744	14839						058
010	0149	0777	35131	649	2743	14847						060
010	0197	0776	35132	650	2743	14854						058
010	0293	0763	35136	609	2746	14865						069
010	0390	0729	35136	576	2751	14868						081
010	0487	0645	35076	534	2757	14850						106
010	0586	0565	35033	542	2764	14834						111
010	0686	0507	35008	578	2769	14826						109
010	0788	0454	34965	604	2772	14821						106
010	0993	0405	34941	633	2776	14834						101
010	1096	0388	34929	651	2776	14844						103
010	1195	0378	34921	656	2777	14856						101
010	1290	0372	34927	655	2778	14870						102
024	1421	0371	34933	651	2778	14892						106
024	1519	0359	34927	654	2779	14903						107
024	1617	0355	34935	650	2780	14918						111
024	1716	0353	34938	650	2781	14934						113
024	1815	0348	34944	649	2782	14948						117
024	1914	0343	34951	647	2783	14963						118
024	2114	0328	34971	645	2786	14991						131
024	2313	0310	34989	642	2789	15018						134
024	2512	0286	34987	640	2791	15042						148
024	2611	0280	34990	642	2792	15056						142
024	2659	0278	34994	645	2792	15064						141

C-REF-NO 001 YR 1967 DEPTH WAVES 1 2535 AIR T 03.1 VIS 8  
 CONS. NO 066 MONTH 2 MXSAMPD 29 WAVES 2 XX WET B 00.3 STN  
 LAT 56-515N DAY 21 NO.DPTH 28 WND-DIR 250 WW-CODE 27  
 LON 25-403W HR 07.3 W-COLOR WND-SPD 18 CLD-TPE 6  
 MARSD SQ 183 C/I 1810 W-TRNSP BARO 990.4 CLD-AMT 4 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	S10	PH
062	0003	0907	35230	646	2731	14873						042
062	0052	0910	35233	630	2730	14882						046
062	0101	0910	35230	632	2730	14890						043
062	0151	0911	35236	631	2730	14899						043
062	0200	0914	35232	630	2730	14908						046
062	0300	0915	35238	629	2730	14925						046
062	0399	0925	35301	563	2733	14946						063
062	0498	0738	35071	538	2744	14888						094
062	0597	0684	35091	495	2753	14884						113
062	0697	0592	35069	528	2764	14863						117
062	0796	0507	35024	564	2771	14845						112
062	0896	0464	34976	587	2772	14843						111
062	0995	0433	34961	610	2774	14846						107
062	1094	0405	34937	630	2775	14851						106
062	1193	0388	34927	642	2776	14860						103
062	1291	0378	34918	653	2777	14872						101
073	1490	0365	34919	654	2778	14900						110
073	1696	0358	34929	655	2779	14932						113
073	1898	0355	34942	648	2781	14965						117
073	2098	0345	34955	646	2783	14995						126
073	2296	0334	34966	642	2785	15025						133
073	2394	0323	34973	643	2786	15037						141
073	2493		34978	639								153
073	2591	0300	34978	631	2789	15061						182
073	2690	0286	34969	620	2789	15072						230
073	2788	0280	34982	630	2791	15086						182
073	2837	0275	34998	644	2793	15093						152
073	2887	0264	34999	654	2794	15097						121

C-REF-NO 001 YR 1967 DEPTH 3049 WAVES 1 2535 AIR T 01.3 VIS 7  
 CONS. NO 067 MONTH 2 MXSAMPD 30 WAVES 2 XX WET B -00.3 STN  
 LAT 56-371N DAY 21 NO.DPTH 28 WND-DIR 260 WW-CODE 90  
 LON 24-468W HR 11.5 W-COLOR WND-SPD 15 CLD-TPE 8  
 MARSD SQ 183 C/I 1810 W-TRNSP BARO 995.1 CLD-AMT 6 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	PO4	-P-	NO2	NO3	SIO	PH
105	0003	0937	35312	640	2732	14885					057	
105	0052	0939	35310	624	2732	14894					053	
105	0101	0939	35311	628	2732	14902					052	
105	0151	0939	35314	631	2732	14910					051	
105	0200	0940	35313	621	2732	14919					047	
105	0298	0940	35313	625	2732	14935					052	
105	0396	0929	35288	595	2732	14947					057	
105	0494	0795	35137	516	2741	14910					097	
105	0591	0733	35144	443	2751	14903					110	
105	0689	0654	35123	508	2760	14888					115	
105	0787	0570	35073	539	2767	14870					114	
105	0885	0510	35031	569	2771	14861					105	
105	0983	0462	34996	604	2774	14857					107	
105	1080	0415	34943	630	2775	14853					111	
105	1177	0399	34936	642	2776	14862					115	
105	1273	0387	34995	618	2782	14874					104	
115	1400	0374	34919	658	2777	14889					105	
115	1495	0367	34915	665	2777	14902					106	
115	1685	0364	34928	655	2779	14933					114	
115	1877	0353	34931	651	2780	14961					118	
115	2072	0343	34941	649	2782	14990					122	
115	2268	0331	34951	653	2784	15018					132	
115	2467	0317	34961	639	2786	15047					159	
115	2664	0298	34964	624	2788	15073					200	
115	2763	0290	34965	620	2789	15086					220	
115	2861	0282	34960	614	2789	15100					242	
115	2910	0279	34960	612	2789	15107					270	
115	2959	0276	34960	617	2790	15114					274	

C-REF-NO 001 YR 1967 DEPTH WAVES 1 2947 AIR T 02.3 VIS 8  
 CONS. NO 068 MONTH 2 MXSAMPD 31 WAVES 2 XX WET B 00.8 STN  
 LAT 56-202N DAY 21 NO.DPTH 28 WND-DIR 290 WW-CODE 27  
 LON 24-080W HR 16.4 W-COLOR WND-SPD 15 CLD-TPE 8  
 MARSD SQ 183 C/I 1810 W-TRNSP BARO 999.4 CLD-AMT 6 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
151	0003	0956	35361	639	2733	14893						041
151	0052	0957	35357	625	2732	14901						040
151	0100	0957	35359	625	2732	14909						041
151	0150	0957	35355	624	2732	14917						041
151	0199	0957	35360	623	2733	14925						041
151	0299	0958	35360	624	2732	14942						040
151	0398	0959	35358	624	2732	14959						042
151	0497	0947	35341	622	2733	14971						043
151	0597	0917	35309	560	2735	14976						060
151	0697	0839	35246	505	2743	14962						086
151	0796	0681	35075	503	2752	14915						105
151	0896		35158	510								108
151	0994	0554	35067	549	2768	14897						107
151	1093	0483	34998	583	2771	14884						104
151	1192	0441	34965	607	2774	14883						104
151	1289	0412	34945	628	2775	14887						101
163	1431	0394	34935	638	2776	14903						
163	1629	0371	34916	654	2777	14926						101
163	1829	0362	34922	654	2778	14956						104
163	2029	0355	34931	651	2780	14988						114
163	2228	0346	34944	646	2782	15018						121
163	2428	0333	34950	644	2784	15047						128
163	2629	0316	34959	633	2786	15074						168
163	2829	0292	34965	620	2789	15098						219
163	2929	0281	34959	607	2789	15111						264
163	3029	0283	34971	618	2790	15129						224
163	3080	0280	34967	620	2790	15137						224
163	3130	0279	34974	625	2791	15145						216

C-REF-NO 001	YR 1967	DEPTH	WAVES 1	2535	AIR T 04.8	VIS 8
CONS. NO 069	MONTH 2	MXSAMPD	WAVES 2	XX	WET B 01.3	STN
LAT 56-078N	DAY 21	NO.DPTH	WND-DIR 240		WW-CODE 02	
LON 23-180W	HR 20.9	W-COLOR	WND-SPD 10		CLD-TPE 8	
MARSD SQ 183	C/I 1810	W-TRNSP	BARD 1002.5		CLD-AMT 6	HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
199	0002	0956	35304	623	2728	14892					043	
199	0051	0957	35305	618	2728	14900					042	
199	0101	0958	35304	620	2728	14909					041	
199	0151	0959	35304	621	2728	14918					043	
199	0201	0959	35304	618	2728	14926					041	
199	0301	0917	35240	572	2730	14926					059	
199	0401	0805	35170	503	2742	14899					088	
199	0501	0736	35099	492	2747	14888					103	
199	0601	0650	35088	503	2758	14871					109	
199	0701	0598	35112	533	2766	14867					109	
199	0801	0546	35075	555	2770	14862					109	
199	0899	0493	35029	581	2773	14856					106	
199	0999	0452	34991	605	2774	14855					104	
199	1098	0427	34976	618	2776	14861					107	
199	1197	0403	34949	633	2776	14868					103	
199	1294	0389	34938	639	2777	14878					104	
209	1390	0379	34932	644	2778	14890					113	
209	1490	0370	34932	649	2778	14903					110	
209	1590	0363	34931	647	2779	14917					116	
209	1690	0355	34934	648	2780	14930					118	
209	1789	0348	34939	646	2781	14944					123	
209	1888	0337	34947	644	2783	14956					131	
209	1986	0326	34953	644	2784	14968					145	
209	2084	0316	34961	637	2786	14981					166	
209	2132	0309	34957	631	2786	14986					179	
209	2181	0299	34959	623	2787	14990					210	
209	2229	0296	34970	630	2789	14997					192	
209	2277	0288	34959	616	2788	15002					243	

C-REF-NO 001 YR 1967 DEPTH 1708 WAVES 1 1920 AIR T 03.4 VIS 8  
 CONS. NO 070 MONTH 2 MXSAMPD 17 WAVES 2 2555 WET B 00.8 STN  
 LAT 55-500N DAY 22 NO.DPTH 18 WND-DIR 190 WW-CODE 02  
 LON 22-152W HR 01.7 W-COLOR WND-SPD 04 CLD-TPE 8  
 MARSD SQ 183 C/I 1810 W-TRNSP BARO 1003.0 CLD-AMT 7 HW

## O B S E R V E D

GMT	DFPTH	T E M P	S A L	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
018	0002	0920	35255	620	2730	14878						047
018	0036	0921	35253	619	2730	14884						048
018	0110	0923	35254	619	2730	14897						051
018	0159	0923	35255	618	2730	14905						050
018	0208	0924	35253	618	2730	14913						053
018	0307	0840	35156	508	2735	14897						089
018	0406	0773	35161	493	2746	14888						101
018	0505	0672	35126	498	2758	14864						113
018	0604	0599	35092	527	2765	14851						112
018	0803	0493	35037	583	2773	14840						109
018	1003	0419	34965	624	2776	14842						106
018	1202	0384	34933	644	2777	14860						106
018	1401	0371	34939	648	2779	14888						109
018	1498	0367	34942	644	2780	14903						118
018	1547	0362	34945	644	2780	14909						121
018	1595	0359	34942	647	2780	14916						121
018	1642	0356	34944	647	2781	14923						123
018	1690	0347	34960	643	2783	14927						134

C-REF-NO 001 YR 1967 DEPTH WAVES 1 XX AIR T -09.0 VIS 5  
 CONS. NO 071 MONTH 3 MXSAMPO 08 WAVES 2 XX WET B -09.0 STN  
 LAT 65-453N DAY 08 NO.DPTH 18 WND-DIR 030 WW-CODE 85  
 LON 28-062W HR 23.9 W-COLOR WND-SPD 07 CLD-TPE X  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 992.5 CLD-AMT 8 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	NO2	NO3	SIO	PH
239	0002	0628	35143	649	2765	14764						060
239	0061	0636	35155	662	2765	14777						062
235	0196	0630	35147		2765	14797						
239	0263	0634	35155	662	2765	14810						060
239	0462	0633	35154	662	2765	14842						068
239	0536	0634	35161	662	2766	14855						060
239	0586	0633	35158	662	2766	14863						061
239	0610	0634	35159	662	2765	14867						060
239	0630	0628	35152	662	2766	14868						060
239	0650	0615	35141	656	2767	14866						065
239	0669	0601	35138	655	2768	14863						064
239	0689	0593	35127	660	2768	14863						065
239	0709	0578	35118	671	2769	14860						060
239	0729	0562	35111	668	2771	14857						062
239	0748	0552	35111	664	2772	14856						065
239	0767	0457	35070	682	2780	14820						064
239	0791		34961	705								066
239	0807	0032	34929	713	2805	14640						065

C-REF-NO 001 YR 1967 DEPTH WAVES 1 XX AIR T -08.6 VIS 5  
 CONS. NO 072 MONTH 3 MXSAMPD 08 WAVES 2 XX WET B -09.0 STN  
 LAT 65-420N DAY 09 NO.DPTH 13 WND-DIR 050 WW-CODE 02  
 LON 27-550W HR 02.9 W-COLOR WND-SPD 07 CLD-TPE X  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 991.7 CLD-AMT 8 HW

## O B S E R V E D

GMT	DFPTH	T E M P	S A L	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
029	0012	0616	35168	668	2769	14761						062
029	0107	0618	35166	668	2768	14778						062
029	0208	0618	35166	668	2768	14794						062
029	0309	0608	35168	668	2770	14807						064
029	0409	0617	35169	668	2768	14827						062
023	0427	0611	35163		2769	14828						
029	0508	0608	35165	665	2769	14840						064
029	0558	0599	35148	662	2769	14844						064
029	0607	0577	35134	662	2771	14843						068
029	0657	0568	35127	663	2771	14848						066
029	0706	0564	35129	670	2772	14854						066
029	0731	0564	35130	668	2772	14859						067
029	0757	0563	35127	673	2772	14862						064

C-REF-NO 001 YR 1967 DEPTH 728 WAVES 1 0721 AIR T -05.0 VIS 5  
 CONS. NO 073 MONTH 3 MXSAMPD 07 WAVES 2 XX WET B -05.5 STN  
 LAT 65-335N DAY 09 NO.DPTH 13 WND-DIR 070 WW-CODE 71  
 LON 27-426W HR 06.2 W-COLOR WND-SPD 07 CLD-TPE  
 MARSD SO 219 C/I 1810 W-TRNSP BARO 991.9 CLD-AMT 8 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	NO2	NO3	SIO	PH
062	0004	0646	35164	662	2764	14772						060
062	0024	0646	35169	662	2765	14775						059
062	0123	0648	35171	662	2765	14792						060
055	0196	0624										
062	0220	0635	35156	662	2765	14803						058
062	0316	0627	35149	662	2766	14816						061
062	0413	0629	35157	664	2766	14832						060
062	0511	0623	35160	659	2767	14846						061
062	0561	0606	35145	671	2768	14848						058
062	0611	0596	35139	673	2769	14852						058
062	0662	0577	35136	678	2771	14852						060
062	0688	0566	35130	679	2772	14852						
062	0713	0554	35127	684	2773	14852						059

C-REF-NO 001 YR 1967 DEPTH 619 WAVES 1 0322 AIR T -06.5 VIS 3  
 CONS. NO 074 MONTH 3 MXSAMPD 06 WAVES 2 XX WET B -06.4 STN  
 LAT 65-483N DAY 09 NO-DPTH 21 WND-DIR 030 WW-CODE 57  
 LON 28-236W HR 23.3 W-COLOR WND-SPD 15 CLD-TPE X  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 987.5 CLD-AMT 9 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
233	0028	0649	35164	662	2764	14777						057
233	0045	0649	35161	657	2764	14780						057
233	0090	0645	35160	660	2764	14786						058
233	0134	0629	35148	655	2765	14786						064
233	0179	0555	35070	673	2769	14763						058
233	0224	0484	34997	684	2771	14740						055
233	0268	0424	34988	700	2777	14723						052
233	0313	0416	35009	706	2780	14727						053
233	0359	0413	35016	708	2781	14733						055
233	0403	0436	35083	696	2783	14751						056
233	0422	0318	34955	719	2785	14703						052
233	0432	0196	34820	733	2785	14650						051
233	0440	0055	34718	735	2787	14587						050
233	0450	0017	34708	729	2788	14571						048
233	0460	0033	34752	720	2791	14581						050
233	0468	0060	34803	709	2793	14595						050
224	0493	0101	34909		2799	14619						
233	0498	0101	34912	702	2800	14620						048
233	0537	0070	34929	711	2803	14613						049
233	0579	0063	34934	712	2804	14617						051
233	0600	0063	34940	711	2804	14620						049

C-REF-NO 001 YR 1967 DEPTH WAVES 1 0422 AIR T -05.2 VIS 2  
 CONS. NO 075 MONTH 3 MXSAMPD 08 WAVES 2 XX WET B -05.3 STN  
 LAT 65-448N DAY 10 NO-DPTH 13 WND-DIR 040 WW-CODE 49  
 LON 28-161W HR 03.7 W-COLOR WND-SPD 16 CLD-TPE X  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 986.3 CLD-AMT 9 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
037	0603	0340	34951	709	2783	14742						052
037	0627	0317	34973	715	2787	14737						052
037	0642	0304	34983	720	2789	14734						053
037	0659	0180	34868	714	2790	14681						052
037	0668	0074	34787	713	2791	14634						052
037	0675	0078	34819	703	2794	14638						050
037	0684	0095	34879	723	2797	14648						053
037	0692	0070	34879	719	2799	14638						055
037	0700	0062	34897	718	2801	14636						053
037	0709		34916	714								052
032	0733	0060	34931		2804	14641						
037	0736	0055	34929	712	2804	14639						050
037	0795	0055	34929	712	2804	14649						050

C-REF-NO 001 YR 1967 DEPTH 590 WAVES 1 0558 AIR T -00.5 VIS 6  
 CONS. NO 076 MONTH 3 MXSAMPD 06 WAVES 2 58 WET B -01.0 STN  
 LAT 65-585N DAY 11 NO.DPTH 14 WND-DIR 050 WW-CODE 02  
 LON 27-050W HR 22.0 W-COLOR WND-SPD 25 CLD-TPE X  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 1004.4 CLD-AMT 8 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
220	0027	0472	35007	699	2773	14703						054
220	0185	0388	34942	704	2777	14693						055
220	0283	0304	34903	726	2783	14673						053
220	0383	0384	35058	720	2787	14726						056
220	0424	0396	35101	718	2789	14738						057
220	0444	0165	34975	714	2800	14640						068
220	0454	0027	34937	720	2806	14580						062
220	0464	0020	34935	720	2806	14578						063
220	0473	0019	34937	719	2807	14579						062
220	0484	0018	34937	720	2807	14580						064
220	0494	0019	34935	720	2806	14583						059
220	0503	0018	34937	718	2807	14584						063
220	0541	0018	34937	717	2807	14590						060
220	0577	0018	34899	705	2804	14595						050

C-REF-NO 001 YR 1967 DEPTH WAVES 1 0446 AIR T -05.5 VIS 2  
 CONS. NO 077 MONTH 3 MXSAMPD 06 WAVES 2 XX WET B -05.5 STN  
 LAT 65-538N DAY 12 NO.DPTH 18 WND-DIR 040 WW-CODE 75  
 LON 27-395W HR 01.5 W-COLOR WND-SPD 17 CLD-TPE X  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 1004.5 CLD-AMT 8 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
015	0079	0607	35141	673	2768	14769						052
015	0114	0610	35153	672	2768	14776						052
015	0148	0598	35131	673	2768	14776						050
015	0182	0444	34938	699	2771	14716						050
015	0214	0319	34811	721	2774	14667						047
015	0246	0197	34697	735	2775	14618						045
015	0277	0184	34694	737	2776	14617						044
015	0307	0236	34805	735	2781	14646						048
015	0337	0152	34773	743	2785	14614						047
015	0367	0192	34793	741	2783	14637						046
015	0395	0121	34770	735	2787	14610						045
015	0424	0073	34757	721	2789	14593						044
015	0453	0089	34868	712	2797	14606						044
015	0483	0096	34904	711	2799	14615						042
015	0515	0092	34925	709	2801	14619						043
015	0549	0079	34926	714	2802	14619						043
015	0585	0063	34935	714	2804	14618						047
015	0626	0051	34937	714	2805	14619						046

C-REF-NO 001 YR 1967 DEPTH 630 WAVES 1 2733 AIR T 01.7 VIS 8  
 CONS. NO 078 MONTH 3 MXSAMPD 06 WAVES 2 2135 WET B 00.8 STN  
 LAT 65-491N DAY 18 NO.DPTH 13 WND-DIR 270 WW-CODE 03  
 LON 28-146W HR 22.4 W-COLOR WND-SPD 20 CLD-TPE 8  
 MARSQ SQ 219 C/I 1810 W-TRNSP BARO 975.4 CLD-AMT 2 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
224	0027	0623	35161	666	2767	14767						059
224	0174	0628	35160	668	2766	14793						055
220	0201	0626	35157		2766	14796						
224	0321	0623	35154	663	2767	14815						061
224	0345	0611	35138	657	2767	14814						060
224	0369	0598	35131	650	2768	14812						063
224	0394	0575	35104	644	2769	14807						062
224	0418	0517	35116	662	2777	14788						062
224	0442	0502	35038	668	2772	14784						058
224	0467	0525	35062	664	2772	14798						060
224	0490	0505	35072	657	2775	14794						068
224	0514	0423	35008	653	2779	14763						074
224	0560	0124	34910	657	2798	14640						047

C-REF-NO 001 YR 1967 DEPTH 500 WAVES 1 2734 AIR T -03.3 VIS 8  
 CONS. NO 079 MONTH 3 MXSAMPD 04 WAVES 2 2135 WET B -03.8 STN  
 LAT 65-513N DAY 19 NO.DPTH 12 WND-DIR 270 WW-CODE 03  
 LON 28-273W HR 00.7 W-COLOR WND-SPD 19 CLD-TPE X  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 978.4 CLD-AMT 8 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
007	0002	0617	35157	686	2768	14760						
007	0049	0623	35156	670	2767	14770						054
007	0141	0624	35156	672	2767	14786						053
007	0235	0625	35158	671	2767	14802						052
007	0260	0623	35153	669	2766	14805						053
007	0283	0599	35141	648	2769	14799						062
007	0307	0491	35014	685	2772	14757						052
007	0332	0445	34976	695	2774	14742						050
007	0355	0493	35105	697	2779	14767						052
007	0379	0474	35108	704	2781	14763						052
007	0402	0283	34867	730	2782	14683						048
007	0425	0230	34849	708	2785	14664						049

C-REF-NO 001 YR 1967 DEPTH WAVES 1 2934 AIR T 02.5 VIS 7  
 CONS. NO 080 MONTH 3 MXSAMPD 08 WAVES 2 2035 WET B 00.0 STN  
 LAT 62-220N DAY 22 NO.DPTH 12 WND-DIR 290 WW-CODE 03  
 LON 25-591W HR 13.1 W-COLOR WND-SPD 14 CLD-TPE 8  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 1007.0 CLD-AMT 5 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	NO2	NO3	SIO	PH
131	0004	0689	35194		2761	14789						048
131	0091	0691	35184		2760	14804						049
131	0140	0691	35195		2761	14813						048
131	0190	0691	35184		2760	14821						048
131	0239	0692	35184		2760	14829						047
131	0288	0693	35185		2759	14838						047
131	0388	0695	35186		2759	14855						048
131	0488	0693	35185		2759	14870						042
131	0588	0662	35153		2761	14874						062
131	0688	0653	35148		2762	14887						065
131	0737	0651	35143		2762	14895						066
131	0787	0650	35146		2762	14902						066

C-REF-NO 001 YR 1967 DEPTH 1451 WAVES 1 3221 AIR T 00.9 VIS 8  
 CONS. NO 081 MONTH 3 MXSAMPD 14 WAVES 2 4945 WET B 00.1 STN  
 LAT 62-355N DAY 22 NO.DPTH 16 WND-DIR 320 WW-CODE 26  
 LON 26-460W HR 16.8 W-COLOR WND-SPD 06 CLD-TPE 8  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 1009.8 CLD-AMT 6 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	NO2	NO3	SIO	PH
167	0001		35177									048
167	0040	0686	35184		2760	14794						047
167	0090	0688	35184		2760	14803						048
167	0140	0687	35185		2760	14811						048
167	0239	0688	35186		2760	14828						048
167	0339	0689	35189		2760	14844						048
167	0539	0691	35185		2760	14878						047
167	0740	0655	35143		2761	14897						063
167	0942	0541	35054		2769	14883						083
167	1142	0473	35032		2775	14889						083
167	1242	0464	35026		2776	14901						084
167	1291	0457	35023		2776	14907						084
167	1341	0449	35022		2777	14912						082
167	1390	0442	35016		2778	14917						081
167	1414	0439	35014		2778	14920						081
167	1438	0436	35016		2778	14923						081

C-REF-NO 001 YR 1967 DEPTH 1433 WAVES 1 3223 AIR T 00.5 VIS 4  
 CONS. NO 082 MONTH 3 MXSAMPD 14 WAVES 2 4945 WET B 00.0 STN  
 LAT 62-484N DAY 22 NO.DPTH 16 WND-DIR 320 WW-CODE 26  
 LON 27-305W HR 20.2 W-COLOR WND-SPD 08 CLD-TPE X  
 MARSID SQ 219 C/I 1810 W-TRNSP BARO 1011.5 CLD-AMT 9 HW

## O B S E R V E D

GMT	DEPTH	T E M P	S A L	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
206	0003	0665	35154		2761	14779						050
202	0028	0671	35158		2760	14786						052
202	0076	0671	35158		2760	14794						050
202	0124	0671	35160		2761	14802						052
202	0219	0672	35159		2760	14818						052
202	0314	0672	35155		2760	14833						053
202	0506	0609	35084		2763	14839						074
202	0701	0547	35048		2768	14846						082
202	0898	0486	35046		2775	14853						081
202	1097	0444	35023		2778	14869						079
202	1195	0436	35020		2778	14882						080
202	1244	0431	35017		2779	14888						081
202	1292	0428	35013		2779	14895						080
202	1340	0425	35012		2779	14902						082
202	1364	0422	35006		2779	14904						082
202	1387	0415	35002		2779	14905						084

C-REF-NO 001 YR 1967 DEPTH 1815 WAVES 1 3023 AIR T 00.0 VIS 8  
 CONS. NO 083 MONTH 3 MXSAMPD 18 WAVES 2 3023 WET B -00.1 STN  
 LAT 63-040N DAY 22 NO.DPTH 23 WND-DIR 300 WW-CODE 02  
 LON 28-231W HR 23.6 W-COLOR WND-SPD 11 CLD-TPE 8  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 1011.5 CLD-AMT 5 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	NO2	NO3	SIO	PH
238	0001	0660	35158	671	2762	14777						048
238	0039	0661	35156	664	2762	14784						049
238	0087	0661	35155	669	2762	14792						048
238	0134	0649	35140	662	2762	14794						054
238	0182	0642	35128	660	2762	14799						054
238	0278	0638	35124	662	2762	14813						055
238	0373	0631	35120	668	2763	14826						053
238	0469	0630	35118	665	2763	14842						054
238	0564	0598	35073	637	2763	14844						064
238	0660	0533	35026	595	2768	14833						081
238	0755	0496	35008	600	2771	14833						086
238	0852	0453	34984	614	2774	14831						086
238	0948	0446	35004	624	2776	14845						082
238	1045	0425	34997	631	2778	14852						081
238	1141	0416	34994	633	2779	14864						081
238	1238	0412	35001	637	2780	14879						084
#244	1374	0399	34992	640	2780	14896						085
#244	1474	0391	34986	641	2781	14910						086
#244	1575	0385	34982	641	2781	14924						087
#244	1624	0380	34981	642	2781	14930						C91
#244	1673	0376	34976	641	2781	14937						092
#244	1722	0373	34974	641	2781	14944						C96
#244	1771	0367	34974	641	2782	14949						096

\*MULTIPLE CAST CONTINUED NEXT DAY

C-REF-NO 001 YR 1967 DEPTH 1783 WAVES 1 2736 AIR T 01.1 VIS 8  
 CONS. NO 084 MONTH 3 MXSAMPD 18 WAVES 2 XX WET B -00.4 STN  
 LAT 63-195N DAY 23 NO.DPTH 24 WND-DIR 270 WW-CODE 02  
 LON 29-238W HR 05.5 W-COLOR WND-SPD 17 CLD-TPE 8  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 1009.8 CLD-AMT 6 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
045	0001	0668	35160	676	2761	14780					045	
045	0050	0669	35161	660	2761	14789					052	
045	0099	0670	35165	661	2761	14797					046	
045	0149	0668	35154	657	2760	14804					053	
045	0198	0668	35160	662	2761	14813					045	
045	0298	0665	35154	662	2761	14828					044	
045	0397	0666	35151	662	2761	14844					047	
045	0495	0654	35135	661	2761	14856					048	
045	0594	0576	35061	584	2765	14840					077	
045	0692	0510	35012	599	2769	14829					064	
045	0791	0471	35003	609	2773	14829					076	
045	0889	0437	34983	624	2775	14831					055	
045	0987		34982	634							074	
045	1087	0418	35003	635	2779	14856					075	
045	1186	0409	34995	636	2779	14869					078	
055	1282	0397	34983	641	2780	14880					079	
045	1287	0398	34988	641	2780	14881					060	
055	1381	0391	34984	642	2780	14894					076	
055	1479	0384	34975	641	2780	14907					081	
055	1577	0375	34973	641	2781	14920					086	
055	1624	0374	34974	641	2781	14928					086	
055	1671	0365	34969	642	2782	14932					087	
055	1718	0361	34968	642	2782	14938						
055	1764	0358	34968	642	2783	14944					091	

C-REF-NO 001 YR 1967 DEPTH 2176 WAVES 1 2735 AIR T -00.4 VIS 8  
 CONS. NO 085 MONTH 3 MXSAMPD 20 WAVES 2 XX WET B -00.5 STN  
 LAT 63-328N DAY 23 NO-DPTH 26 WND-DIR 270 WW-CODE 01  
 LON 30-208W HR 10.3 W-COLOR WND-SPD 12 CLD-TPE 8  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 1006.6 CLD-AMT 5 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
095	0001	0582	35085		2766	14745					053	
095	0050	0583	35085		2766	14753					052	
095	0098	0583	35082		2766	14761					050	
095	0147	0586	35085		2766	14770					052	
095	0196	0568	35058		2766	14771					051	
095	0291	0570	35066		2766	14787					057	
095	0385	0570	35064		2766	14803					055	
095	0479	0568	35064		2766	14818					056	
095	0574	0563	35056		2766	14831					047	
095	0669	0526	35020		2768	14831					072	
095	0766	0470	34971		2771	14824					074	
095	0864	0468	35008		2774	14840					074	
095	0963	0444	34993		2775	14846					073	
095	1065	0404	34950		2776	14846					077	
095	1168	0378	34934		2778	14852					075	
102	1234	0384	34947		2778	14866					079	
095	1273	0384	34951		2779	14872					077	
102	1330	0374	34948		2779	14878					079	
102	1426	0370	34944		2779	14892					082	
102	1521	0366	34944		2780	14906					080	
102	1618	0365	34948		2780	14922					080	
102	1716	0362	34953		2781	14938					085	
102	1814	0358	34956		2782	14953					091	
102	1911	0352	34956		2782	14967					089	
102	1962	0349	34960		2783	14974						
102	2011	0344	34948		2782	14980					C92	

C-REF-NO 001 YR 1967 DEPTH WAVES 1 2735 AIR T -01.0 VIS 8  
 CONS. NO 086 MONTH 3 MXSAMPD 27 WAVES 2 XX WET B -02.8 STN  
 LAT 63-492N DAY 23 NO.DPTH 28 WND-DIR 270 WW-CODE 02  
 LON 31-184W HR 15.4 W-COLOR WND-SPD 09 CLD-TPE 8  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 1005.7 CLD-AMT 6 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
145	0001	0561	35062		2767	14736						058
145	0050	0563	35063		2767	14745						059
145	0100	0563	35062		2767	14753						058
145	0150	0563	35065		2767	14761						060
145	0199	0563	35060		2767	14769						059
145	0299	0564	35065		2767	14786						061
145	0398	0564	35064		2767	14803						059
145	0497	0515	35000		2768	14798						074
145	0596	0486	34989		2770	14803						084
145	0694	0451	34971		2773	14804						084
145	0793	0413	34937		2774	14804						084
145	0891	0386	34918		2776	14809						081
145	0990	0374	34914		2777	14820						080
145	1089	0370	34917		2777	14835						081
145	1188	0364	34914		2778	14849						081
145	1286	0362	34926		2779	14865						082
154	1430	0366	34938		2779	14891						086
154	1628	0361	34951		2781	14922						092
154	1827	0351	34956		2782	14952						096
154	2026	0341	34960		2784	14982						103
154	2227	0330	34958		2784	15011						106
154	2426	0314	34952		2786	15038						110
154	2526	0300	34948		2787	15049						109
154	2576	0293	34944		2787	15055						107
154	2625	0274	34929		2787	15055						094
154	2675	0236	34913		2789	15047						084
154	2700	0197	34896		2791	15034						067
154	2724	0155	34896		2794	15020						063

C-REF-NO 001 YR 1967 DEPTH 2676 WAVES 1 2935 AIR T -03.5 VIS 4  
 CONS. NO 087 MONTH 3 MXSAMPD 26 WAVES 2 XX WET B -04.0 STN  
 LAT 64-020N DAY 23 NO.DPTH 28 WND-DIR 290 WW-CODE 26  
 LON 32-177W HR 20.2 W-COLOR WND-SPD 05 CLD-TPE 9  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 1004.9 CLD-AMT 8 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	PO4	-P-	NO2	NO3	SIO	PH
192	0005	0558	35098	673	2770	14736						057
192	0054	0561	35079	672	2769	14745						059
192	0102	0562	35078	671	2768	14753						058
192	0152	0562	35078	671	2768	14762						057
192	0201	0562	35079	673	2768	14770						058
192	0299	0562	35080	669	2768	14786						058
192	0398	0562	35077	669	2768	14802						057
192	0497	0466	34968	611	2771	14778						079
192	0595	0444	34970	615	2774	14785						082
192	0694	0415	34950	631	2775	14789						081
192	0793	0389	34930	647	2776	14794						077
192	0891	0378	34929	653	2777	14806						079
192	0991	0370	34926	658	2778	14819						077
192	1090	0368	34933	658	2779	14835						080
192	1190	0363	34930	658	2779	14849						080
192	1290	0365	34942	636	2780	14867						081
202	1398	0367	34953	645	2780	14886						084
202	1548	0359	34962	647	2782	14908						089
202	1750	0348	34960	645	2783	14938						094
202	1951	0334	34961	645	2784	14966						099
202	2150	0322	34966	647	2786	14995						105
202	2347	0310	34964	647	2787	15023						111
202	2443	0301	34959	650	2787	15036						111
202	2490	0294	34954	651	2788	15041						109
202	2538	0282	34945	655	2788	15044						104
202	2562	0275	34944	656	2788	15045						102
202	2585	0265	34936	661	2789	15044						097
202	2608	0258	34935	662	2789	15045						096

C-REF-NO 001 YR 1967 DEPTH 2225 WAVES 1 0323 AIR T -04.5 VIS 8  
 CONS. NO 088 MONTH 3 MXSAMPD 22 WAVES 2 XX WET B -05.0 STN  
 LAT 64-139N DAY 23 NO.DPTH 28 WND-DIR 030 WW-CODE 03  
 LON 31-107W HR 23.2 W-COLOR WND-SPD 12 CLD-TPE 8  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 1006.1 CLD-AMT 4 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	NO2	NO3	SIO	PH
234	0001	0558	35081		2769	14735						053
234	0100	0557	35073		2769	14751						057
234	0200	0557	35075		2769	14767						054
234	0402	0566	35082		2768	14804						055
234	0502	0551	35062		2768	14815						060
234	0603	0468	34986		2772	14796						079
234	0703	0446	34981		2774	14804						079
234	0804	0405	34941		2776	14803						076
234	0904	0384	34928		2777	14810						075
234	1003	0373	34922		2777	14822						072
234	1103	0369	34928		2778	14837						078
234	1201	0364	34930		2779	14852						076
234	1300	0364	34944		2780	14868						077
234	1399	0363	34954		2781	14885						084
234	1497	0362	34950		2781	14901						082
234	1596	0356	34957		2782	14915						086
‡242	1717	0351	34962		2783	14933						089
‡242	1818	0342	34964		2784	14947						091
‡242	1869	0340	34962		2784	14954						095
‡242	1919	0339	34964		2784	14963						096
‡242	1970	0334	34960		2784	14969						092
‡242	2020	0299	34936		2786	14962						072
‡242	2046	0272	34923		2787	14955						062
‡242	2071	0251	34913		2788	14950						061
‡242	2097	0235	34914		2790	14948						055
‡242	2122	0208	34927		2793	14941						060
‡242	2148	0150	34914		2796	14919						044
‡242	2173	0146	34912		2796	14922						044

\*MULTIPLE CAST CONTINUED NEXT DAY

C-REF-NO 001 YR 1967 DEPTH 1826 WAVES 1 0225 AIR T -04.0 VIS 5  
 CONS. NO 089 MONTH 3 MXSAMPD 18 WAVES 2 XX WET B -04.3 STN  
 LAT 64-235N DAY 24 NO.DPTH 25 WND-DIR 020 WW-CODE 26  
 LON 33-493W HR 06.4 W-COLOR WND-SPD 15 CLD-TPE 9  
 MARSD SO 220 C/I 1810 W-TRNSP BARO 1007.2 CLD-AMT 7 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
055	0001	0543	35076		2771	14729						058
075	0050	0552	35074		2769	14741						055
075	0100	0552	35074		2769	14749						055
075	0150	0554	35073		2769	14758						058
075	0199	0554	35073		2769	14766						055
075	0299	0555	35077		2769	14783						057
075	0400	0558	35078		2769	14801						056
046	0406	0557	35078		2769	14801						
075	0500	0559	35078		2769	14818						057
075	0600	0559	35078		2769	14834						060
075	0699	0475	34989		2772	14815						077
075	0799	0446	34976		2774	14819						080
075	0899	0420	34963		2776	14825						079
075	0999	0401	34952		2777	14834						079
075	1098	0387	34945		2778	14844						078
075	1196	0381	34950		2779	14858						082
075	1292	0372	34945		2779	14870						080
064	1302	0367	34952		2780	14870						079
064	1468	0331	34913		2781	14882						052
064	1545	0284	34888		2783	14875						055
064	1614	0261	34893		2786	14877						048
064	1675	0221	34932		2792	14870						058
064	1725	0169	34922		2795	14856						050
064	1745	0149	34925		2797	14851						052
064	1764	0148	34925		2797	14853						051

C-REF-NO 001 YR 1967 DEPTH 1549 WAVES 1 0327 AIR T -07.0 VIS 7  
 CONS. NO 090 MONTH 3 MXSAMPD 15 WAVES 2 XX WET B -07.3 STN  
 LAT 64-300N DAY 24 NO.DPTH 22 WND-DIR 020 WW-CODE 03  
 LON 34-215W HR 09.6 W-COLOR WND-SPD 17 CLD-TPE 6  
 MARSID SQ 220 C/I 1810 W-TRNSP BARO 1011.9 CLD-AMT 8 HW

## O B S E R V E D

GMT	DEPTH	T E M P	S A L	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
100	0001	0584	35134	681	2770	14746						050
100	0050	0588	35124	674	2769	14756						052
100	0099	0587	35124	676	2769	14764						052
100	0197	0578	35112	674	2769	14776						053
100	0294	0573	35104	675	2769	14790						055
100	0391	0562	35090	678	2769	14801						058
100	0487	0560	35084	677	2769	14816						054
100	0583	0550	35075	683	2770	14828						052
100	0680	0473	35000	614	2773	14811						078
100	0777	0429	34973	627	2776	14809						079
100	0874	0392	34951	650	2778	14809						078
100	0972	0390	34962	648	2779	14825						080
100	1069	0376	34966	653	2781	14835						081
100	1166	0363	34966	653	2782	14846						084
107	1263	0351	34954	655	2782	14857						079
107	1314	0325	34924	678	2782	14854						064
107	1341	0323	34927	673	2783	14858						068
107	1368	0312	34920	678	2783	14857						065
107	1394	0285	34918	689	2785	14850						055
107	1421	0249	34924	688	2789	14839						062
107	1447	0202	34906	717	2792	14823						048
107	1475	0195	34906	707	2792	14825						048

C-REF-NO 001 YR 1967 DEPTH 1255 WAVES 1 0337 AIR T -08.8 VIS 8  
 CONS. NO 091 MONTH 3 MXSAMPD 12 WAVES 2 XX WET B -09.0 STN  
 LAT 64-391N DAY 24 NO.DPTH 17 WND-DIR 030 WW-CODE 01  
 LON 34-506W HR 13.1 W-COLOR WND-SPD 20 CLD-TPE 8  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 1014.5 CLD-AMT 3 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
131	0004	0565	35086	688	2769	14739						050
131	0083	0566	35088	673	2769	14752						048
131	0182	0567	35086	673	2768	14769						048
131	0281	0568	35085	674	2768	14785						052
131	0380	0569	35086	676	2768	14802						053
131	0479	0558	35073	657	2768	14814						055
131	0578	0486	35008	611	2772	14800						069
131	0678	0419	34944	678	2774	14788						052
131	0778	0366	34922	673	2778	14782						055
131	0929	0355	34933	668	2780	14802						062
131	0980	0347	34926	673	2780	14807						062
131	1030	0336	34924	674	2781	14811						065
131	1079	0323	34924	678	2782	14814						065
131	1130	0284	34908	687	2785	14805						059
131	1179	0204	34898	706	2791	14779						048
131	1204	0205	34900	669	2791	14783						048
131	1229	0203	34902	693	2791	14787						047

C-REF-NO 001 YR 1967 DEPTH 248 WAVES 1 0222 AIR T -09.0 VIS 8  
 CONS. NO 092 MONTH 3 MXSAMPD 02 WAVES 2 XX WET B -09.7 STN  
 LAT 64-497N DAY 24 NO.DPTH 9 WND-DIR 020 WW-CODE 01  
 LON 35-335W HR 16.0 W-COLOR WND-SPD 14 CLD-TPE 8  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 1017.1 CLD-AMT 1 HW

## O B S E R V E D

GMT	DFPTH	T E M P	S A L	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	S10	PH
160	0003	0492	34974		2769	14707						050
160	0022	0500	34976		2768	14714						047
160	0072	0529	35028		2768	14734						051
160	0097	0532	35037		2769	14740						047
160	0122	0546	35063		2769	14750						048
160	0146	0523	35039		2770	14744						048
160	0170	0468	34994		2773	14725						047
160	0195	0407	34947		2776	14703						045
160	0221	0401	34944		2776	14705						043

C-REF-NO 001 YR 1967 DEPTH 302 WAVES 1 0223 AIR T -08.0 VIS 8  
 CONS. NO 093 MONTH 3 MXSAMPD 03 WAVES 2 XX WET B -08.3 STN  
 LAT 69-497N DAY 24 NO.DPTH 8 WND-DIR 020 WW-CODE 02  
 LON 37-395W HR 22.7 W-COLOR WND-SPD 10 CLD-TPE X  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 1018.4 CLD-AMT 6 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
227	0001	-0119	33390		2688	14416						039
227	0051	-0002	33824		2718	14484						040
227	0102	0173	34300		2745	14578						047
227	0153	0298	34586		2758	14645						050
227	0204	0363	34749		2765	14683						055
227	0233	0380	34796		2767	14696						052
227	0263	0401	34865		2770	14710						055
227	0282	0403	34867		2770	14714						056

C-REF-NO 001 YR 1967 DEPTH WAVES 1 3422 AIR T -05.1 VIS 8  
 CONS. NO 094 MONTH 3 MXSAMPD 13 WAVES 2 XX WET B -05.4 STN  
 LAT 63-392N DAY 25 NO.DPTH 17 WND-DIR 340 WW-CODE 02  
 LON 37-088W HR 03.2 W-COLOR WND-SPD 10 CLD-TPE 8  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 1018.5 CLD-AMT 7 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	NO2	NO3	SIO	PH
032	0001	0472	35001	699	2773	14699						061
032	0060	0474	34998	696	2772	14709						064
032	0160	0469	34988	697	2772	14724						062
032	0363	0464	34984	699	2773	14755						062
032	0564	0436	34952	699	2773	14776						060
023	0603	0435	34949		2773	14782						
032	0764	0421	34954	680	2775	14803						067
032	0864	0394	34943	680	2777	14808						069
032	0964	0365	34931	678	2779	14812						072
032	1013	0356	34930	678	2780	14817						072
032	1063	0342	34927	678	2781	14819						072
032	1113	0336	34922	678	2781	14825						071
032	1163	0330	34925	678	2782	14831						072
032	1187	0327	34925	676	2782	14834						077
032	1212	0319	34933	670	2784	14834						083
032	1237	0314	34928	673	2784	14836						082
032	1261	0299	34918	686	2784	14834						070

C-REF-NO 001 YR 1967 DEPTH 1810 WAVES 1 3623 AIR T -06.0 VIS 8  
 CONS. NO 095 MONTH 3 MXSAMPD 18 WAVES 2 XX WET B -06.2 STN  
 LAT 69-312N DAY 25 NO.DPTH 27 WND-DIR 360 WW-CODE 03  
 LON 36-350W HR 08.7 W-COLOR WND-SPD 08 CLD-TPE 8  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 1016.8 CLD-AMT 6 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
071	0001	0532	35072		2772	14724					059	
071	0050	0532	35070		2771	14732					060	
071	0098	0523	35060		2772	14737					060	
071	0148	0510	35040		2772	14739					057	
064	0154	0499	35028		2772	14735						
071	0196	0501	35027		2772	14743					058	
071	0295	0475	35000		2773	14748					056	
071	0393	0445	34970		2774	14752					062	
071	0491	0432	34959		2774	14762					063	
071	0589	0402	34950		2777	14766					066	
071	0686	0380	34942		2778	14773					071	
071	0784	0361	34945		2780	14781					076	
071	0881	0355	34940		2781	14794					075	
071	0979	0336	34929		2782	14803					072	
071	1075	0319	34926		2783	14811					072	
071	1173	0298	34914		2784	14819					069	
071	1271	0279	34901		2785	14827					059	
087	1401	0279	34906		2785	14849					064	
087	1500	0271	34905		2786	14862					064	
087	1549	0254	34902		2787	14863					057	
087	1599	0251	34898		2787	14870					052	
087	1647	0244	34912		2789	14875					057	
087	1695	0235	34914		2790	14879					062	
087	1719	0231	34912		2790	14882					060	
087	1742	0228	34912		2790	14884					057	
087	1767	0211	34908		2791	14881					053	
087	1790	0197	34917		2793	14879					053	

C-REF-NO 001 YR 1967 DEPTH 2170 WAVES 1 0134 AIR T -04.6 VIS 8  
 CONS. NO 096 MONTH 3 MXSAMPD 21 WAVES 2 4945 WET B -05.0 STN  
 LAT 63-248N DAY 25 NO.DPTH 28 WND-DIR 010 WW-CODE 02  
 LON 35-583W HR 11.8 W-COLOR WND-SPD 09 CLD-TPE 6  
 MARSD SO 220 C/I 1810 W-TRNSP BARO 1016.1 CLD-AMT 7 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
011	0001	0535	35064		2771	14726					064	
011	0099	0535	35065		2771	14742					061	
011	0198	0536	35064		2770	14758					060	
011	0298	0536	35066		2771	14775					061	
011	0397	0538	35062		2770	14792					064	
011	0496	0533	35056		2770	14806					065	
011	0595	0499	35015		2771	14808					064	
011	0695	0454	34984		2774	14806					077	
011	0795	0414	34954		2776	14805					075	
011	0894	0394	34943		2777	14813					076	
011	0995	0374	34930		2778	14821					081	
011	1095	0369	34938		2779	14836					085	
011	1195	0366	34943		2780	14852					083	
011	1293	0365	34950		2780	14868					087	
115	1419	0339	34920		2781	14877					070	
115	1521	0338	34929		2781	14894					075	
115	1623	0319	34922		2783	14903					072	
115	1725	0299	34932		2785	14912					082	
115	1826	0266	34917		2787	14915					066	
115	1877	0239	34914		2789	14912					065	
115	1927	0208	34914		2792	14907					064	
115	1977	0171	34913		2795	14899					058	
115	2002	0165	34915		2795	14901					062	
115	2026	0156	34916		2796	14901					058	
115	2051	0154	34917		2796	14905					057	
115	2075	0153	34919		2796	14908					058	
115	2100	0153	34917		2796	14913					070	
115	2124	0153	34919		2796	14917					060	

C-REF-NO 001 YR 1967 DEPTH 2415 WAVES 1 0122 AIR T -05.1 VIS 8  
 CONS. NO 097 MONTH 3 MXSAMPD 24 WAVES 2 0445 WET B -05.5 STN  
 LAT 63-185N DAY 25 NO.DPTH 28 WND-DIR 010 WW-CODE 26  
 LON 35-325W HR 15.1 W-COLOR WND-SPD 09 CLD-TPE 8  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 1016.0 CLD-AMT 7 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
142	0001	0531	35046	678	2770	14724						069
142	0100	0532	35047	677	2770	14740						070
142	0200	0532	35044	677	2769	14757						070
142	0300	0533	35046	677	2769	14774						068
142	0402	0532	35042	675	2769	14790						070
142	0502	0531	35040	675	2769	14806						068
142	0602	0472	34982	614	2771	14798						088
142	0702	0440	34960	618	2773	14801						091
142	0803	0411	34945	634	2775	14805						091
142	0903	0395	34938	645	2776	14815						088
142	1003	0382	34929	652	2777	14826						087
142	1103	0372	34927	657	2778	14839						087
142	1201	0368	34933	657	2779	14853						089
142	1301	0366	34936	657	2779	14869						091
142	1400	0367	34945	653	2780	14886						092
142	1498	0365	34950	650	2780	14902						095
151	1677	0356	34956	645	2782	14929						102
151	1779	0349	34957	647	2783	14943						104
151	1983	0326	34948	652	2784	14968						104
151	2083	0303	34942	654	2786	14975						104
151	2183	0202	34887	690	2790	14948						082
151	2233	0182	34890	695	2792	14948						070
151	2258	0163	34903	699	2794	14944						066
151	2282	0131	34908	705	2797	14934						061
151	2307	0121	34918	704	2799	14934						063
151	2332	0111	34914	705	2799	14934						063
151	2357	0108	34915	705	2799	14937						061
151	2381	0101	34912	706	2800	14938						061

C-REF-NO 001 YR 1967 DEPTH 2710 WAVES 1 0223 AIR T -04.3 VIS 6  
 CONS. NO 098 MONTH 3 MXSAMPD 27 WAVES 2 4935 WET B -04.7 STN  
 LAT 63-031N DAY 25 NO.DPTH 28 WND-DIR 020 WW-CODE 26  
 LON 34-337W HR 20.0 W-COLOR WND-SPD 09 CLD-TPE 8  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 1014.5 CLD-AMT 7 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	NO2	NO3	SIO	PH
190	0001	0522	35030	683	2769	14720						070
190	0099	0525	35032	678	2769	14737						069
190	0198	0527	35033	678	2769	14754						068
190	0298	0527	35036	676	2769	14771						067
190	0398	0528	35034	677	2769	14788						069
190	0498	0488	34985	628	2770	14787						083
190	0599	0430	34945	623	2773	14779						086
190	0699	0405	34934	634	2775	14785						091
190	0798	0383	34920	650	2776	14792						089
190	0898	0368	34908	659	2777	14802						086
190	0998	0367	34918	647	2778	14819						087
190	1098	0361	34918	661	2778	14833						087
190	1196	0359	34922	654	2779	14849						087
190	1295	0360	34939	653	2780	14866						093
190	1394	0362	34952	647	2781	14883						096
190	1491	0358	34953	649	2781	14898						097
199	1673	0349	34955	642	2782	14925						102
199	1873	0334	34958	647	2784	14953						105
199	2072	0322	34960	646	2785	14981						112
199	2173	0316	34959	645	2786	14996						116
199	2273	0306	34954	647	2786	15009						115
199	2373	0295	34951		2787	15021						118
199	2423	0282	34940	652	2788	15024						113
199	2473	0258	34927	663	2789	15022						103
199	2523	0217	34898	678	2790	15013						083
199	2574	0161	34883	697	2793	14997						065
199	2624	0129	34871	705	2794	14991						057
199	2674	0105	34894	704	2798	14990						059

C-REF-NO 001 YR 1967 DEPTH 2870 WAVES 1 0226 AIR T -03.0 VIS 8  
 CONS. NO 099 MONTH 3 MXSAMPD 28 WAVES 2 XX WET B -04.0 STN  
 LAT 62-485N DAY 25 NO.DPTH 28 WND-DIR 030 WW-CODE 85  
 LON 33-340W HR 23.5 W-COLOR WND-SPD 15 CLD-TPE 8  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 1015.8 CLD-AMT 7 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
238	0001	0532	35029	689	2768	14724						064
238	0100	0532	35025		2768	14740						069
238	0299	0533	35024	652	2768	14773						061
238	0497	0523	35009	621	2768	14802						066
238	0695	0446	34953	621	2772	14802						087
238	0795	0400	34926	634	2775	14799						083
238	0893	0389	34920		2776	14811						085
238	0993	0374	34909	615	2776	14821						085
238	1093	0368	34913	637	2777	14835						082
238	1193	0362	34915	614	2778	14849						085
238	1291	0357	34919	650	2779	14864						085
238	1390	0361	34936	647	2780	14882						085
238	1489	0365	34951	648	2780	14901						089
238	1585	0363	34955	648	2781	14916						092
238	1682	0358	34968	626	2783	14930						094
238	1776	0350	34956	653	2782	14943						092
\$246	1946	0343	34962	648	2784	14969						098
\$246	2046	0336	34962	641	2784	14983						103
\$246	2147	0330	34963	641	2785	14998						104
\$246	2247	0322	34956	640	2785	15011						105
\$246	2346	0314	34958	652	2786	15025						110
\$246	2445	0306	34957	650	2787	15038						110
\$246	2544	0294	34950	653	2787	15050						110
\$246	2641	0260	34922	665	2788	15052						093
\$246	2690	0227	34900	678	2789	15046						079
\$246	2739	0193	34900	683	2792	15040						068
\$246	2787	0158	34900	696	2795	15033						065
\$246	2835	0124	34900	698	2797	15026						066

\*MULTIPLE CAST CONTINUED NEXT DAY

C-REF-NO 001 YR 1967 DEPTH 2938 WAVES 1 3635 AIR T -01.7 VIS 8  
 CONS. NO 100 MONTH 3 MXSAMPO 29 WAVES 2 3657 WET B -02.1 STN  
 LAT 62-331N DAY 26 NO.DPTH 28 WND-DIR 360 WH-CODE 26  
 LON 32-360W HR 05.9 W-COLOR WND-SPD 16 CLD-TPE 8  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 1015.2 CLD-AMT 8 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
048	0001	0515	35024	681	2770	14717						070
048	0100	0514	35016	626	2769	14733						069
048	0299	0476	34971	611	2770	14749						077
048	0498	0432	34941	610	2773	14763						084
048	0697	0394	34923	620	2775	14780						086
048	0797	0378	34914	623	2776	14790						082
048	0897	0371	34915	654	2777	14804						084
048	0998	0365	34915	656	2778	14818						089
048	1099	0365	34926	624	2778	14835						091
048	1199	0364	34937	647	2779	14851						092
048	1299	0364	34945	636	2780	14868						097
048	1400	0358	34945	651	2781	14883						096
048	1498	0356	34954	647	2782	14898						099
048	1597	0352	34955	649	2782	14913						099
048	1694	0345	34954	648	2783	14927						101
048	1790	0340	34956	641	2783	14941						111
059	1997	0330	34961	648	2785	14972						099
059	2101	0324	34962	647	2785	14987						116
059	2205	0318	34963	646	2786	15002						121
059	2308	0312	34962	628	2787	15017						121
059	2410	0306	34958	642	2787	15032						121
059	2512	0299	34954	638	2787	15047						121
059	2611	0290	34952	647	2788	15060						122
059	2708	0265	34938	662	2789	15066						114
059	2755	0240	34924	661	2790	15063						097
059	2802	0217	34912	674	2791	15061						090
059	2848	0197	34905	683	2792	15060						086
059	2893	0171	34898	683	2793	15057						075

C-REF-NO 001 YR 1967 DEPTH WAVES 1 0148 AIR T -01.0 VIS 6  
 CONS. NO 101 MONTH 3 MXSAMPD 27 WAVES 2 0659 WET B -01.0 STN  
 LAT 62-165N DAY 26 NO.DPTH 28 WND-DIR 010 WW-CODE 03  
 LON 31-393W HR 11.1 W-COLOR WND-SPD 20 CLD-TPE 8  
 MARSD SD 220 C/I 1810 W-TRNSP BARO 1014.5 CLD-AMT 8 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
102	0001	0583	35063	698	2765	14745						060
102	0099	0584	35064	674	2764	14762						058
102	0298	0586	35065	677	2764	14795						057
102	0495	0588	35063	678	2764	14828						053
102	0693	0535	35006	632	2766	14839						068
102	0793	0477	34967	615	2770	14831						081
102	0892	0445	34960	615	2773	14834						080
102	0992	0410	34931	634	2774	14836						085
102	1093	0385	34916	655	2776	14842						082
102	1194	0373	34911	665	2776	14854						079
102	1294	0367	34911	665	2777	14868						079
102	1396	0367	34929	657	2779	14886						085
102	1496	0367	34937	660	2779	14902						087
102	1597	0366	34943	652	2780	14919						091
112	1704	0366	34955	647	2781	14937						091
112	1802	0361	34956		2781	14952						091
112	1899	0354	34959	640	2782	14965						095
112	1996	0346	34959	652	2783	14979						097
112	2095	0340	34960	653	2784	14993						098
112	2194	0335	34960	647	2784	15008						099
112	2293	0329	34960	652	2785	15022						108
112	2393	0323	34959	647	2785	15037						109
112	2444	0320	34959	649	2786	15044						111
112	2495	0318	34959	648	2786	15052						112
112	2546	0314	34957	649	2786	15059						113
112	2597	0313	34959	647	2786	15067						114
112	2648	0311	34956		2786	15075						114
112	2700	0308	34956	648	2786	15083						113

C-REF-NO 001 YR 1967 DEPTH 2091 WAVES 1 0148 AIR T -01.5 VIS 2  
 CONS. NO 102 MONTH 3 MXSAMPD 20 WAVES 2 XXXX WET B -01.7 STN  
 LAT 62-021N DAY 27 NO.DPTH 24 WND-DIR 010 WW-CODE 26  
 LON 30-465W HR 07.8 W-COLOR WND-SPD 14 CLD-TPE X  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 1019.8 CLD-AMT 9 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
070	0001	0622	35127		2765	14762					056	
070	0099	0623	35126		2764	14778					061	
070	0199	0622	35122		2764	14794					058	
070	0299	0622	35118		2764	14810					060	
070	0398	0613	35108		2764	14823					067	
070	0498	0600	35090		2764	14834					062	
070	0597	0576	35062		2765	14840						
070	0697	0501	34993		2769	14825					091	
070	0796	0468	34994		2773	14828					084	
070	0895	0422	34962		2775	14825					089	
070	0995	0399	34947		2777	14832					086	
070	1096	0384	34944		2778	14843					088	
070	1197	0378	34947		2779	14857					090	
070	1297	0376	34956		2780	14873					088	
078	1390	0375	34964		2780	14888					094	
078	1491	0370	34962		2781	14903					092	
078	1594	0364	34959		2781	14918					096	
078	1695	0358	34960		2782	14933					095	
078	1797	0348	34963		2783	14946					103	
078	1898	0341	34965		2784	14960					106	
078	1948	0339	34967		2784	14968					106	
078	1997	0333	34970		2785	14973					112	
078	2022	0334	34967		2785	14978					110	
078	2047	0334	34967		2785	14982					111	

C-REF-NO 001 YR 1967 DEPTH 2130 WAVES 1 0148 AIR T -02.0 VIS 6  
 CONS. NO 103 MONTH 3 MXSAMPO 21 WAVES 2 4948 WET B -02.5 STN  
 LAT 61-482N DAY 27 NO.DPTH 23 WND-DIR 010 WW-CODE 86  
 LON 29-500W HR 12.4 W-COLOR WND-SPD 19 CLD-TPE 8  
 MARSD SO 219 C/I 1810 W-TRNSP BARO 1020.5 CLD-AMT 7 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	NO2	NO3	SIO	PH
115	0001	0679	35178	677	2761	14785						054
115	0178	0669	35170	657	2762	14810						057
115	0251	0648	35158	665	2764	14813						059
115	0312	0622	35107	686	2763	14812						062
115	0363	0610	35101	665	2764	14816						064
124	0585	0502	35004	609	2770	14807						C90
124	0685	0471										
124	0786	0469	35026	595	2775	14828						087
124	0887	0440	35019	620	2778	14832						087
124	0987	0413	35006	633	2780	14837						088
124	1089	0411	35012	641	2781	14854						087
124	1191	0409	35009	640	2781	14870						087
124	1293	0403	35007	633	2781	14884						087
124	1394	0398	35001	637	2781	14899						089
124	1494	0384	34988	635	2781	14910						094
124	1594	0367	34970	651	2782	14919						C99
124	1691	0351	34962	639	2783	14929						103
124	1787	0342	34964	642	2784	14941						109
124	1880	0336	34966	641	2785	14955						114
124	1924	0334	34968	648	2785	14961						114
124	1968	0333	34966	651	2785	14968						116
124	2011	0333	34965	642	2785	14976						112
124	2053	0334	34965	647	2785	14983						115

C-REF-NO 001 YR 1967 DEPTH 1780 WAVES 1 3623 AIR T 00.0 VIS 8  
 CONS. NO 104 MONTH 3 MXSAMPD 18 WAVES 2 0258 WET B -00.8 STN  
 LAT 61-359N DAY 27 NO.DPTH 24 WND-DIR 360 WW-CODE 02  
 LON 29-020W HR 16.9 W-COLOR WND-SPD 12 CLD-TPE 8  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 1020.0 CLD-AMT 7 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
162	0002	0664	35157	678	2761	14779						056
162	0051	0663	35157	665	2761	14786						058
162	0101	0664	35154	664	2761	14795						057
162	0152	0664	35154	664	2761	14803						058
162	0201	0665	35156	665	2761	14812						057
162	0302	0665	35156	665	2761	14828						058
162	0403	0666	35156	664	2761	14845						059
162	0503	0657	35144	659	2761	14858						058
162	0602	0625	35112	660	2763	14861						060
162	0701	0595	35079	627	2764	14865						062
162	0799	0539	35048	589	2769	14859						074
162	0898	0476	34991	607	2772	14849						091
162	0996	0439	34972	621	2774	14849						089
162	1095	0434	35005	629	2778	14864						089
162	1195	0411	34977	638	2778	14871						088
162	1295	0413	34995	637	2779	14889						086
169	1393	0404	34995	635	2780	14901						089
169	1495	0387	34976	640	2780	14911						092
169	1547	0384	34974	641	2780	14919						094
169	1598	0384	34972	638	2780	14927						093
169	1649	0383	34974	640	2780	14936						093
169	1701	0381	34972	641	2781	14943						095
169	1727	0381	34972	641	2781	14948						096
169	1753	0380	34971	638	2781	14952						095

C-REF-NO 001 YR 1967 DEPTH WAVES 1 3646 AIR T -01.0 VIS 3  
 CONS. NO 105 MONTH 3 MXSAMPO 16 WAVES 2 3658 WET B -01.2 STN  
 LAT 61-241N DAY 27 NO.DPTH 20 WND-DIR 360 WW-CODE 26  
 LON 28-171W HR 20.4 W-COLOR WND-SPD 12 CLD-TPE X  
 MARSD SQ 219 C/I 1810 W-TRNSP BARO 1019.2 CLD-AMT 9 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
203	0015	0702	35202	660	2760	14796						053
203	0075	0703	35202	655	2759	14807						054
203	0175	0702	35201	655	2759	14823						055
203	0275	0702	35201	654	2759	14839						051
203	0375	0702	35199	658	2759	14856						051
203	0475	0702	35196	657	2759	14872						053
203	0576	0703	35198	656	2759	14889						055
203	0676	0649	35146	589	2762	14884						077
203	0776	0607	35123	582	2766	14883						082
203	0877	0536	35067	584	2771	14871						089
203	0977	0479	35031	605	2775	14863						089
203	1077	0448	35022	621	2777	14867						087
203	1176	0428	35014	626	2779	14875						086
203	1276	0419	35013	630	2780	14888						089
203	1375	0419	35012	633	2780	14905						087
203	1424	0419	35012	632	2780	14913						086
203	1473	0419	35013	631	2780	14921						086
203	1522	0420	35012	631	2780	14930						086
203	1547	0420	35014	631	2780	14934						086
203	1571	0419	35014	631	2780	14938						085

C-REF-NO 001 YR 1967 DEPTH 1679 WAVES 1 3421 AIR T 01.2 VIS 8  
 CONS. NO 106 MONTH 3 MXSAMPD 15 WAVES 2 3654 WET B -01.2 STN  
 LAT 60-C86N DAY 28 NO.DPTH 17 WND-DIR 340 WW-CODE 02  
 LON 30-100W HR 05.3 W-COLOR WND-SPD 05 CLD-TPE 8  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 1020.8 CLD-AMT 6 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
042	0002	0713	35195		2757	14799						052
042	0088	0715	35191		2757	14813						050
042	0287	0679	35146		2758	14831						055
042	0486	0610	35064		2761	14836						072
042	0585	0573	35068		2766	14837						088
042	0685	0525	35053		2771	14834						086
042	0785	0459	34998		2774	14823						089
042	0886	0422	34981		2777	14824						087
042	0985	0410	34989		2779	14836						087
042	1085	0400	34996		2780	14848						087
042	1185	0397	34997		2781	14864						086
042	1285	0394	34997		2781	14879						085
042	1334	0394	34996		2781	14887						087
042	1383	0391	34996		2781	14894						090
042	1433	0389	34995		2782	14902						086
042	1457	0388	34994		2782	14906						089
042	1481	0386	34996		2782	14909						087

C-REF-NO 001 YR 1967 DEPTH 2000 WAVES 1 XX AIR T 01.0 VIS 8  
 CONS. NO 107 MONTH 3 MXSAMPD 20 WAVES 2 3623 WET B -01.0 STN  
 LAT 60-244N DAY 28 NO.DPTH 24 WND-DIR 200 WW-CODE 01  
 LON 30-598W HR 09.0 W-COLOR WND-SPD 05 CLD-TPE 8  
 MARSD SO 220 C/I 1810 W-TRNSP BARO 1018.6 CLD-AMT 7 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
097	0001	0658	35144	659	2761	14776						056
097	0100	0660	35143	671	2761	14793						056
097	0200	0658	35142	672	2761	14809						052
097	0301	0658	35141	671	2761	14825						055
097	0402	0659	35141	669	2761	14842						056
097	0502	0604	35069	674	2762	14836						071
097	0602	0526	35012	598	2768	14820						086
097	0701	0510	35047	593	2772	14831						087
097	0800	0465	35015	613	2775	14828						087
097	0900	0436	35005	628	2777	14833						086
097	0999	0410	34998	636	2780	14838						085
097	1099	0364	34936	659	2779	14835						089
097	1198	0367	34952	652	2780	14853						C91
097	1298	0365	34954	652	2781	14869						C94
090	1348	0363	34962	644	2782	14876						096
090	1452	0361	34962	652	2782	14893						C91
090	1554	0362	34960	646	2781	14910						C96
090	1657	0358	34964	650	2782	14926						C98
090	1758	0355	34970	647	2783	14942						101
090	1808	0354	34970	649	2783	14950						101
090	1858	0353	34968		2783	14958						101
090	1908	0351	34970		2783	14966						102
090	1933	0351	34970	652	2783	14970						103
090	1957	0349	34968	647	2783	14973						104

C-REF-NO 001 YR 1967 DEPTH 2363 WAVES 1 1720 AIR T 02.0 VIS 8  
 CONS. NO 108 MONTH 3 MXSAMPD 23 WAVES 2 0243 WET B -00.5 STN  
 LAT 60-387N DAY 28 NO.DPTH 28 WND-DIR 170 WW-CODE 03  
 LON 31-555W HR 14.6 W-COLOR WND-SPD 06 CLD-TPE 6  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 1014.1 CLD-AMT 8 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
138	0001	0648	35130	671	2761	14772						056
138	0050	0645	35130	672	2762	14779						055
138	0100	0645	35126	673	2761	14787						052
138	0150	0647	35128	670	2761	14796						053
138	0199	0647	35131	670	2762	14804						054
138	0298	0646	35125	670	2761	14820						055
138	0397	0647	35129	672	2761	14837						055
138	0496	0648	35127	672	2761	14853						055
138	0594	0626	35098	663	2762	14860						060
138	0692	0621	35098	670	2762	14875						058
138	0790	0606	35084	673	2763	14885						060
138	0889	0543	35035	585	2767	14875						086
138	0986	0459	34969	581	2772	14856						087
138	1084	0460	35011	596	2775	14873						086
138	1182	0434	35006	584	2778	14879						086
138	1280	0414	35000	620	2779	14887						084
146	1464	0375	34952	645	2780	14901						087
146	1658	0369	34963	631	2781	14931						092
146	1754	0360	34960	622	2782	14943						096
146	1851	0357	34966	637	2782	14959						096
146	1948	0352	34963	646	2783	14973						099
146	2045	0347	34968	640	2784	14987						100
146	2142	0341	34968	644	2784	15001						102
146	2190	0339	34969	645	2784	15009						108
146	2238	0338	34969	641	2785	15016						106
146	2286	0337	34969		2785	15024						106
146	2311	0337	34967	638	2785	15029						106
146	2335	0337	34967	644	2785	15033						107

C-REF-NO 001 YR 1967 DEPTH 2764 WAVES 1 2223 AIR T 04.0 VIS 8  
 CONS. NO 109 MONTH 3 MXSAMPD 27 WAVES 2 XX WET B 02.2 STN  
 LAT 60-537N DAY 28 NO.DPTH 28 WND-DIR 220 WW-CODE 02  
 LON 32-440W HR 19.0 W-COLOR WND-SPD 07 CLD-TPE 3  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 1008.0 CLD-AMT 8 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
181	0001	0560	35054	678	2767	14736						061
181	0050	0547	35045	678	2768	14738						060
181	0100	0541	35036	678	2768	14744						063
181	0150	0543	35037	678	2767	14753						064
181	0200	0545	35043	673	2768	14762						064
181	0300	0510	35004	610	2769	14764						082
181	0402	0462	34960	634	2771	14760						081
181	0502	0429	34940	631	2773	14763						082
181	0601	0414	34936	631	2774	14773						084
181	0701	0399	34933	634	2776	14783						083
181	0801	0384	34926	644	2777	14793						083
181	0900	0374	34922	662	2777	14805						080
181	1000	0367	34918	636	2778	14819						082
181	1099	0362	34921	646	2778	14834						085
181	1198	0362	34936	657	2780	14850						084
181	1298	0362	34946	652	2780	14867						088
185	1562	0355	34958	642	2782	14909						092
185	1760	0342	34958	650	2783	14937						095
185	1859	0338	34964	648	2784	14952						099
185	1959	0334	34968		2785	14967						097
185	2058	0329	34968		2785	14982						106
185	2157	0325	34973	636	2786	14997						108
185	2256	0320	34967	621	2786	15012						112
185	2357	0317	34965	640	2786	15028						113
185	2457	0306	34964	641	2787	15040						116
185	2557	0294	34957	651	2788	15052						116
185	2657	0284	34951	640	2788	15065						116
185	2708	0280	34948	652	2788	15072						111

C-REF-NO 001 YR 1967 DEPTH 2932 WAVES 1 2821 AIR T 03.0 VIS 8  
 CONS. NO 110 MONTH 3 MXSAMPD 29 WAVES 2 XX WET B 02.0 STN  
 LAT 61-083N DAY 28 NO.DPTH 28 WND-DIR 280 WW-CODE 01  
 LON 33-388W HR 23.3 W-COLOR WND-SPD 03 CLD-TPE 8  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 1008.0 CLD-AMT 1 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	NO2	NO3	SIO	PH
225	0001	0545	35047	707	2768	14729					064	
225	0100	0548	35046	620	2768	14747					063	
225	0299	0498	34990	636	2769	14758					068	
225	0500	0447	34959	620	2772	14770					085	
225	0699	0398	34935	632	2776	14782						
225	0799	0388	34935	633	2777	14795					085	
225	0898	0376	34926	616	2777	14806					085	
225	0998	0367	34921	659	2778	14819					084	
225	1097	0363	34926	617	2779	14834					086	
225	1195	0365	34941	658	2780	14851					088	
225	1295	0363	34948		2780	14867					092	
225	1394	0362	34953	635	2781	14883					092	
225	1493	0358	34955	655	2781	14898					092	
225	1593	0355	34960	648	2782	14914					096	
233	1681	0350	34962	642	2783	14927					101	
233	1781	0347	34965	647	2783	14943					103	
233	1882	0341	34965	649	2784	14957					104	
233	1983	0335	34967	642	2785	14972					105	
233	2084	0327	34966	641	2785	14986					110	
233	2185	0323	34968	626	2786	15001					114	
233	2286	0316	34964	645	2786	15015					117	
233	2387	0311	34962	640	2787	15030					116	
233	2488	0304	34958	646	2787	15045					119	
233	2588	0297	34956	649	2787	15059					116	
233	2688	0284	34952	657	2788	15071					114	
233	2787	0211	34916	673	2792	15056					087	
233	2836	0191	34907	683	2793	15056					077	
233	2885	0183	34904	665	2793	15061					074	

C-REF-NO 001 YR 1967 DEPTH 2975 WAVES 1 1121 AIR T 02.3 VIS 9  
 CONS. NO 111 MONTH 3 MXSAMPD 29 WAVES 2 XX WET B 01.8 STN  
 LAT 61-242N DAY 29 NO-DPTH 28 WND-DIR 110 WW-CODE 03  
 LON 34-320W HR 04.2 W-COLOR WND-SPD 03 CLD-TPE 3  
 MARSD SO 220 C/I 1810 W-TRNSP BARO 1012.1 CLD-AMT 2 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
031	0001	0495	35000	647	2770	14708						068
028	0090	0493	34994	641	2770	14722						067
028	0291	0488	34990	683	2770	14753						067
028	0492	0446	34946	622	2772	14768						077
028	0692	0407	34932	629	2775	14785						085
028	0793	0389	34924	631	2776	14794						086
028	0892	0374	34913	656	2777	14804						084
028	0993	0367	34912	654	2777	14818						082
028	1093	0361	34913	660	2778	14832						085
028	1193	0360	34919	663	2778	14848						085
028	1293	0355	34919	664	2779	14863						088
028	1393	0358	34932	656	2780	14881						088
028	1492	0358	34944	647	2781	14898						093
028	1592	0357	34952	633	2781	14915						C96
043	1693	0351	34954	647	2782	14929						C99
043	1896	0342	34960	646	2783	14960						102
043	1997	0336	34963	645	2784	14975						106
043	2200	0323	34963	638	2786	15004						113
043	2301	0317	34962	646	2786	15018						116
043	2402	0310	34958	633	2786	15033						118
043	2503	0301	34953	651	2787	15046						118
043	2603	0293	34953	652	2788	15060						120
043	2703	0276	34945	655	2788	15070						117
043	2753	0264	34938	657	2789	15073						113
043	2803	0250	34926	664	2789	15075						101
043	2852	0217	34911	677	2791	15070						087
043	2877	0198	34908	682	2792	15066						084
043	2902	0159	34899	688	2794	15053						074

C-REF-NO 001 YR 1967 DEPTH 2850 WAVES 1 27XX AIR T 03.0 VIS 9  
 CONS. NO 112 MONTH 3 MXSAMPD 21 WAVES 2 3623 WET B 02.0 STN  
 LAT 61-388N DAY 29 NO.DPTH 17 WND-DIR 270 WW-CODE 03  
 LON 35-263W HR 09.2 W-COLOR WND-SPD 02 CLD-TPE 3  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 1016.2 CLD-AMT 7 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
079	0001	0501	35006	673	2770	14711						068
079	0200	0464	34960	655	2771	14728						073
079	0401	0445	34947	626	2772	14753						086
079	0502	0421	34935		2773	14759						084
079	0603	0397	34926	611	2775	14766						082
079	0703	0387	34927	622	2776	14778						086
079	0803	0369	34911	651	2777	14787						080
079	0903	0362	34909	653	2777	14801						081
079	1003	0364	34917		2778	14818						086
079	1102	0360	34923		2779	14833						087
079	1201	0363	34938		2780	14851						089
079	1301	0356	34940	641	2780	14865						090
079	1402	0354	34946	648	2781	14881						092
079	1502	0353	34954	636	2782	14898						093
092	1697	0343	34960	647	2783	14927						098
092	1896	0333	34962	636	2785	14956						103
092	2096	0315	34960	639	2786	14982						109

C-REF-NO 001 YR 1967 DEPTH 2750 WAVES 1 1421 AIR T 02.0 VIS 8  
 CONS. NO 113 MONTH 3 MXSAMPD 27 WAVES 2 XX WET B 00.0 STN  
 LAT 61-529N DAY 29 NO.DPTH 28 WND-DIR 140 WW-CODE 03  
 LON 36-203W HR 13.6 W-COLOR WND-SPD 03 CLD-TPE 8  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 1019.5 CLD-AMT 8 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
126	0001	0484	34993	683	2771	14704					070	
126	0100	0484	34995	683	2771	14720					070	
126	0299	0485	34995	682	2771	14753					070	
126	0499	0475	34986	666	2771	14782					074	
126	0698	0396	34930	674	2776	14781					086	
126	0796	0375	34912	657	2776	14788					084	
126	0895	0365	34908	664	2777	14801					083	
126	0994	0366	34921	666	2778	14818					086	
126	1094	0363	34927	663	2779	14833					088	
126	1194	0363	34934	660	2779	14850					089	
126	1293	0363	34945	654	2780	14867					092	
126	1394	0362	34953	649	2781	14883					094	
126	1494	0354	34953	652	2782	14897					097	
126	1597	0350	34957	652	2782	14913					099	
136	1713	0341	34961	646	2784	14928					103	
136	1813	0336	34964	649	2784	14943					106	
136	1913	0327	34956	644	2785	14956					110	
136	2015	0320	34960	651	2786	14971					111	
136	2115	0312	34956	647	2786	14984					116	
136	2216	0307	34958	652	2787	14999					120	
136	2316	0296	34953	653	2787	15012					117	
136	2417	0281	34944	654	2788	15023					113	
136	2517	0248	34916	672	2789	15025					090	
136	2567	0235	34915	674	2790	15028					092	
136	2617	0212	34910	678	2791	15027					086	
136	2666	0177	34898	696	2793	15020					075	
136	2691	0149	34896	696	2795	15012					069	
136	2716	0116	34902	699	2798	15002					068	

C-REF-NO 001 YR 1967 DEPTH 2531 WAVES 1 2821 AIR T 01.4 VIS 8  
 CONS. NO 114 MONTH 3 MXSAMPD 25 WAVES 2 XX WET B 00.4 STN  
 LAT 62-083N DAY 29 NO.DPTH 27 WND-DIR 180 WW-CODE 03  
 LON 37-151W HR 19.6 W-COLOR WND-SPD 03 CLD-TPE 6  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 1024.0 CLD-AMT 8 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	S10	PH
170	0001	0494	35010	681	2771	14708						067
170	0099	0495	35015	679	2771	14725						071
170	0299	0491	35005	678	2771	14756						071
171	0411	0494	35013		2771	14776						
170	0498	0490	35008	678	2771	14788						070
170	0698	0427	34945	624	2774	14794						088
170	0797	0401	34937	636	2776	14800						087
170	0896	0377	34918	654	2777	14806						086
170	0996	0370	34916	658	2777	14820						087
170	1096	0364	34920	661	2778	14834						088
170	1195	0361	34921	662	2778	14849						088
170	1295	0362	34933	655	2779	14867						090
170	1395	0363	34948	649	2780	14884						093
170	1495	0358	34953	650	2781	14899						096
170	1597	0352	34957		2782	14913						099
196	1786	0334	34958	648	2784	14938						104
196	1888	0326	34958	647	2785	14952						107
196	1990	0289	34918	668	2785	14953						089
196	2092	0287	34940	655	2787	14970						109
196	2193	0240	34906	678	2788	14966						081
196	2294	0193	34898	692	2792	14963						069
196	2344	0176	34900	696	2793	14964						065
196	2393	0157	34900	696	2795	14964						065
196	2418	0145	34904	700	2796	14963						061
196	2442	0133	34908	701	2797	14962						061
196	2467	0120	34912	704	2798	14961						059
196	2491	0111	34913	705	2799	14961						059

C-REF-NO 001 YR 1967 DEPTH 2405 WAVES 1 AIR T 01.0 VIS 8  
 CONS. NO 115 MONTH 3 MXSAMPD 24 WAVES 2 WET B 00.0 STN  
 LAT 62-208N DAY 30 NO.DPTH 28 WND-DIR 040 WW-CODE 03  
 LON 38-023W HR 01.1 W-COLOR WND-SPD 05 CLD-TPE X  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 1025.3 CLD-AMT 8 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	PO4	-P-	N02	N03	SIO	PH
003	0001	0489	35019	666	2772	14706						070
003	0100	0485	35007	674	2772	14721						072
003	0301	0473	34989	683	2772	14748						072
003	0503	0472	34988	669	2772	14781						086
003	0604	0427	34945	631	2774	14779						086
003	0704	0405	34937	637	2775	14786						084
003	0804	0386	34926	642	2776	14795						086
003	0904	0373	34920	652	2777	14806						084
003	1004	0365	34915	656	2778	14819						085
003	1103	0362	34923		2779	14834						085
003	1202	0362	34932	642	2779	14851						091
003	1302	0362	34940	653	2780	14868						089
003	1402	0358	34946	654	2781	14883						094
003	1503	0354	34949	648	2781	14898						094
012	1564	0348	34952	652	2782	14906						099
012	1666	0343	34960	651	2783	14921						103
012	1769	0336	34956	651	2784	14936						103
012	1871	0314	34948	652	2785	14944						105
012	1972	0298	34940	653	2786	14954						104
012	2073	0266	34920	656	2787	14957						094
012	2123	0254	34909	669	2788	14960						085
012	2174	0231	34901	678	2789	14959						082
012	2224	0211	34892	687	2790	14959						070
012	2273	0186	34883	689	2791	14956						065
012	2297	0179	34898	692	2793	14957						066
012	2321	0164	34903	699	2794	14955						060
012	2346	0147	34902	701	2796	14952						060
012	2370	0146	34901	701	2795	14956						060

#WAVES INCONSISTENT

C-REF-NO 001 YR 1967 DEPTH 2315 WAVES 1 0122 AIR T -01.0 VIS 5  
 CONS. NO 116 MONTH 3 MXSAMPD 22 WAVES 2 XX WET B -01.1 STN  
 LAT 62-286N DAY 30 NO.DPTH 26 WND-DIR 010 WW-CODE 71  
 LON 38-428W HR 06.7 W-COLOR WND-SPD 08 CLD-TPE X  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 1025.7 CLD-AMT 8 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
057	0001	0497	35033	683	2773	14710						065
057	0099	0482	35011	679	2773	14719						069
050	0210	0495	35024		2772	14743						
057	0300	0477	34998	669	2772	14750						071
057	0502	0468	34986	673	2772	14779						081
057	0601	0420	34944	622	2774	14775						086
057	0701	0395	34928	630	2776	14781						085
057	0801	0382	34926	629	2777	14792						085
057	0901	0379	34936	652	2778	14808						084
057	1000	0371	34934	629	2779	14821						087
057	1099	0359	34929	652	2779	14832						087
057	1197	0357	34932	654	2780	14848						084
057	1297	0357	34948	651	2781	14865						094
057	1398	0351	34948	642	2782	14879						091
057	1499	0342	34948	622	2783	14893						094
067	1640	0330	34951	641	2784	14911						099
067	1744	0311	34938	654	2785	14921						096
067	1849	0287	34916	659	2785	14928						091
067	1952	0250	34906	672	2788	14929						081
067	2053	0221	34898	678	2789	14934						077
067	2103	0203	34902	679	2791	14935						080
067	2152	0179	34897		2793	14933						070
067	2176	0162	34898	681	2794	14929						066
067	2201	0142	34898	694	2796	14925						064
067	2225	0132	34900	699	2796	14925						064
067	2249	0120	34900	703	2797	14923						063

C-REF-NO 001 YR 1967 DEPTH 2142 WAVES 1 0522 AIR T 00.0 VIS 8  
 CONS. NO 117 MONTH 3 MXSAMPD 21 WAVES 2 XX WET B -00.5 STN  
 LAT 62-369N DAY 30 NO.DPTH 25 WND-DIR 040 WW-CODE 03  
 LON 39-089W HR 10.9 W-COLOR WND-SPD 10 CLD-TPE X  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 1024.5 CLD-AMT 8 HW

## O B S E R V E D

GMT	DFPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
102	0001	0518	35040	683	2771	14718						062
102	0100	0518	35042	672	2771	14735						065
098	0208	0514	35034		2771	14751						
102	0301	0511	35031	658	2771	14765						065
102	0502	0514	35040	677	2771	14799						064
102	0602	0502	35022	668	2771	14811						066
102	0702	0452	34970	650	2773	14806						073
102	0802	0414	34944	641	2775	14806						082
102	0901	0395	34937	662	2776	14815						077
102	1001	0382	34942	662	2778	14826						078
102	1100	0371	34936	661	2779	14838						084
102	1199	0359	34934	657	2780	14849						082
102	1298	0347	34932		2781	14861						080
102	1398	0347	34950	653	2782	14878						092
102	1497	0342	34952	652	2783	14892						097
109	1592	0316	34929	661	2784	14897						087
109	1692	0285	34916	668	2785	14900						086
109	1792	0248	34908	676	2788	14901						087
109	1891	0209	34898	692	2790	14901						072
109	1940	0199	34902	693	2792	14905						069
109	1989	0188	34904	694	2793	14909						067
109	2014	0185	34903	696	2793	14912						067
109	2038	0182	34904	696	2793	14915						065
109	2062	0176	34905	699	2794	14916						065
109	2086	0163	34902	698	2794	14914						065

C-REF-NO 001 YR 1967 DEPTH 1879 WAVES 1 0323 AIR T -00.9 VIS 5  
 CONS. NO 118 MONTH 3 MXSAMPD 18 WAVES 2 XX WET B -01.1 STN  
 LAT 62-441N DAY 30 NO.DPTH 23 WND-DIR 030 WW-CODE 10  
 LON 39-399W HR 16.1 W-COLOR WND-SPD 12 CLD-TPE 7  
 MARSD SQ 220 C/I 1810 W-TRNSP BARO 1023.3 CLD-AMT 8 HW

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
153	0001	0509	35024	688	2770	14714					063	
153	0100	0501	35014	683	2771	14727					065	
150	0207	0501	35009		2770	14745						
153	0299	0502	35018	672	2771	14760					066	
153	0499	0463	34981	616	2772	14777					070	
153	0598	0432	34963	673	2774	14780					068	
153	0698	0412	34951	653	2776	14788					076	
153	0797	0387	34938	654	2777	14794					077	
153	0897	0374	34934	656	2778	14805					080	
153	0997	0369	34944	652	2780	14820					087	
153	1097	0355	34940	656	2781	14831					085	
153	1196	0342	34930	665	2781	14841					079	
153	1296	0335	34929	661	2782	14855					085	
153	1396	0311	34921	673	2783	14862					077	
153	1495	0297	34924	675	2785	14872					082	
160	1569	0271	34918	679	2787	14874					073	
160	1622	0251	34916	678	2788	14874					079	
160	1675	0226	34908	672	2790	14872					072	
160	1726	0199	34893	692	2791	14869					068	
160	1752	0193	34896	690	2792	14871					048	
160	1777	0181	34895	696	2792	14870					065	
160	1802	0178	34896	683	2793	14873					063	
160	1826	0177	34893	696	2793	14876					063	

C-REF-NO 001 YR 1967 DEPTH 367 WAVES 1 0323 AIR T -04.0 VIS 7  
 CONS. NO 119 MONTH 3 MXSAMPD 03 WAVES 2 XX WET B -05.0 STN  
 LAT 62-560N DAY 30 NO.DPTH B WND-DIR 030 WW-CODE 02  
 LON 40-235W HR 18.7 W-COLOR WND-SPD 12 CLD-TPE 7  
 MARSD SQ 221 C/I 1810 W-TRNSP BARO 1022.3 CLD-AMT 8 HH

## O B S E R V E D

GMT	DEPTH	TEMP	SAL	OXYGEN	SGMT	SOUND	P04	-P-	N02	N03	SIO	PH
187	0010	0263	34550		2758	14606						
187	0029	0283	34596		2760	14618						050
187	0079	0367	34802		2768	14665						055
187	0128	0394	34852		2770	14685						055
187	0178	0412	34881		2770	14701						055
187	0228	0419	34890		2770	14713						055
187	0277	0423	34898		2770	14722						055
187	0326	0424	34902		2770	14731						055

## REFERENCES

**PRINTED PUBLICATIONS OF THE CANADIAN OCEANOGRAPHIC DATA CENTRE  
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NO.	TITLE	CODC REFERENCE
1	Labrador and Irminger Seas	10-66-001
2	Grand Banks to the Azores and Scotian Shelf (Restricted)	10-66-002
3	Ocean Weather Station "P"	02-67-007 02-67-009

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